

LIBRARY

THE

ARCHITECTURAL RECORD

A MONTHLY MAGAZINE OF ARCHITECTURE
AND THE ALLIED ARTS AND CRAFTS

VOLUME XIX

JANUARY—JUNE

1906

PUBLISHED BY
THE ARCHITECTURAL RECORD CO.
14 AND 16 VESEY ST., NEW YORK
120 RANDOLPH STREET, CHICAGO

AR
V. 19
cop. 2

CONTENTS OF

ARCHITECTURAL RECORD

VOLUME XIX.

JANUARY–JUNE, 1906.

		PAGE
ARBOR LODGE		37
ARCHITECT AND THE CRITIC, THE	H. W. Desmond	279
ARCHITECTURAL ANARCHY, OUR	Criticaster	207
ARCHITECTURAL OASIS, AN		135
ARMORIES, TWO NEW	Montgomery Schuyler	259
BUFFALO HOUSES	George Cary, Architect	459
CAMPANILE, BUILDING OF THE NEW	S. A. Atkinson	223
CUSTOM HOUSE AT NEW YORK, THE NEW	Montgomery Schuyler	83
DAIKAN, THE PERIOD OF	Zaida Ben-Yusuf	145
DENVER, OPENING THE CENTER OF	C. M. Robinson	365
DESIGNING, SCHOOL AND PRACTICE	Russell Sturgis	413
DOORWAYS OF THE EIGHTEENTH CENTURY, PARISIAN	Russell Sturgis	123
FACTORIES AND WAREHOUSES	Russell Sturgis	369
FORTRESS-MONASTERIES OF THE HOLY LAND	William G. Fitz Gerald	275
FIRST NATIONAL BANK OF CHICAGO, THE BUILDING OF THE	A. C. David	49
GARGOYLES, OLD AND NEW	Chas. De Kay	419
GEORGIAN WORK IN CHARLESTON, S. C., EXAMPLES OF	J. Robie Kenn dy, Jr.	283
GRISWOLD, THE, A STUDY IN SUMMER HOTEL BUILDING		345
HARDENBERGH, A CONVERSATION WITH HENRY JANEWAY	Sadakichi Hartmann	377
HARMONIE CLUB-HOUSE, THE	H D. Croly	237
HARVARD CLUB-HOUSE, THE NEW	Herbert Croly	195
INDIANAPOLIS COURT HOUSE AND POST OFFICE	H. W. Frohne	437
JAPANESE HOUSES	Katharine C. Budd	1
MERCANTILE PLANT, THE BUILDING OF A GREAT	Theodore Starrett	265
MERCANTILE PLANT, DESIGNING A GREAT	Nimmons and Fellows	403
MINNESOTA STATE CAPITOL	Russell Sturgis	31
MORGAN LIBRARY AND ART MUSEUM, THE		389
NEW AID IN THE SPECIFICATION ROOM, A		477
NOTES AND COMMENTS	66, 151, 227, 306, 395,	471
OLD NORTH CHURCH, PAUL REVERE'S	Willard French	215
ORIGINAL AMERICAN ARCHITECTURE, A TYPE OF	Vere O. Wallingford	467
PAINT PROGRESS		401
PAINT SPECIFICATION, THE ROUTINE OF		325
PIKE, THE HOUSE OF MR. A. B.		59
PYNCHON HOUSE, THE	H. W. Frohne	381
ROMAN ART, PART I	Jean Schopfer	443
ROYAL INSURANCE BUILDING, THE		362
SAN FRANCISCO, THE PROMISED CITY OF	Herbert Croly	425
SARAGOSSA	Katherine C. Budd	327
SENATOR CLARK, THE HOUSE OF		27
SHAW, SOME HOUSES BY HOWARD	A. C. David	105
SPENCER, JR., TWO HOUSES BY ROBERT C		295
STURGIS'S LAST BOOK, REVIEW OF MR. RUSSELL	John La Farge	199
SUBURBAN ARCHITECTURE IN PHILADELPHIA AND VICINITY, RECENT	Prof. Thomas Nolan	167
TECHNICAL DEPARTMENT		163
TERRA COTTA, GLAZED AND COLORED		313
TERRA COTTA, THE PROPER USE OF		73
WOOD, DONN & DEMING, WASHINGTON, D C., THE WORK OF	Leila Mechlin	245

THE GETTY CENTER
LIBRARY

VOL. XIX. No. 1. JANUARY, 1906. WHOLE No. 88.

THE ARCHITECTURAL RECORD

CONTENTS

	PAGE
JAPANESE HOUSES—ILLUSTRATED KATHARINE C. BUDD	1
THE HOUSE OF SENATOR CLARK—ILLUSTRATED	27
MINNESOTA STATE CAPITOL—ILLUSTRATED RUSSELL STURGIS	31
ARBOR LODGE—ILLUSTRATED	37
THE BUILDING OF THE FIRST NATIONAL BANK OF CHICAGO—ILLUSTRATED A. C. DAVID	49
THE HOUSE OF MR. A. B. PIKE—ILLUSTRATED	59
NOTES AND COMMENTS	66
TECHNICAL DEPARTMENT—ILLUS. THE PROPER USE OF TERRA COTTA	73

C. W. SWEET, Publisher R. W. REINHOLD, Business Mgr.
H. W. DESMOND, Editor H. D. CROLY, Associate Editor

Subscription (Yearly), $3.00 **Published Monthly**

TWENTY-FIVE CENTS

THE ARCHITECTURAL RECORD CO.
NEW YORK

TWENTY-FIVE CENTS

OFFICE OF PUBLICATION: Nos. 14 and 16 VESEY STREET, NEW YORK CITY.
WESTERN OFFICE: 511 MONADNOCK BLDG., CHICAGO, ILL.



FIG. 3. A MOUNTAIN VILLAGE—SHOWING A GOOD EXAMPLE OF THE THATCHED ROOF.
Photo by Miss Ben-Yusuf.

The
Architectural Record

VOL. XIX. JANUARY, 1906. No. 1.

Japanese Houses

The eyes of the whole world are directed towards Japan at this moment. We are filled with wonder as we watch the persevering little men overcoming one difficulty after another in the face of formidable obstacles. We note the simplicity of the lives of this astonishing nation, and are curious about all details concerning their home life—the meagre diet which strengthens their bodies, the cleanly habits which keep them in good health, and the apparent slightness of the houses which protect them from storms. This slightness is only in appearance, for the workmanship put into their buildings is so marvelous that they can stand shocks that would shatter our more pretentious dwellings. That artistic instinct which in Japan goes hand in hand with mechanical execution renders these houses excellent in line and proportion, as well as perfectly adapted to the needs of the inmates. We see this even in the poorest cottage in Japan, for in that thrifty land there is no poverty such as we know in the Occident. Laborers there, living with their families on a pittance which would not keep the soul in the body of one of our workingmen, are decently housed in clean, orderly houses, are well shod, well clad and well fed.

The great fault of these houses is their icy coolness in winter. The hardy Japanese, adding more well-wadded garments as the cold increases, huddle around a handful of coals with only a paper screen (or at best an eighth of an inch of wood) between them and the freezing winds. In summer, however, their houses are ideal; we may well study them in order to put some of their good points into execution in our own country houses. A few Japanese houses have been built here; costly affairs built of imported materials by Japanese workmen; there is no reason why we cannot take some of their ideas and have them carried out by our own artisans. Of course the cost of labor here renders it practically impossible for us to finish our buildings as beautifully as the Orientals do, carving is out of the question except in very handsome houses, and even then it is rarely successful, because designed by some one at a distance, to be slavishly copied by an artisan who is afraid to put any of his own spirit into the work. We never see carving here in a poor man's house except, perhaps, that of some old sailor who whittles out weather vanes, sign boards or freakish bits of furniture.

The workmanship in Japanese houses is exquisite, the frame being ingeniously constructed and cleverly put together, the finish throughout unrivalled. Few are built of stone or other permanent material. Although the nation is old we look in vain for the "historic monuments" we find in Egypt and

Copyright, 1905, by "The Architectural Record Company." All rights reserved.
Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879.

Greece. Wood is used on account of earthquakes, as a frame building, strongly joined together, will withstand a severe shaking like a basket. But having roof tiles fall in all directions on the inside of the house is anything but pleasant. Little children are taught when the earth trembles to run to the shelter of the entrance door, as its well



Fig. 2. Storehouse in the garden of an Abbot's palace. The walls are covered with white plaster.

Photo by Miss Ben-Yusuf.

braced lintel covers the safest place in the house. As soon as a child feels a warning thrill, he scuttles to the door like a chicken to its mother's wing.

Another reason why there are few very old buildings in Japan is on account of the frequent fires, which in the cities sweep away thousands of houses like a whirlwind. People rarely keep valuables in the house, for every well-to-do family has a kura (storehouse) of heavy masonry where their treasures are stored. Sometimes the kura is simply a fireproof vault built partly under ground in the garden.

Formerly most of the houses were covered with thatch. We still see many of these picturesque roofs in the country villages, but on account of its inflammabillity, straw has been replaced by tiles, in the cities. It is interesting to notice how many of the characteristic features of the thatched roof have been retained, and are reproduced in wood and tile. The prominent line of the ridge with the quaint curves or small gables at the ends, is always shown. Sometimes the Japanese use great white tiles in the ridge instead of the dark ones on the roof. The eave line is thick and heavy, the little quirks and curves at the ends and corners are still as marked as when they were formed of the finishing bunches of straw, solidly tied together to keep the most exposed places weather tight. At first tiles were laid only on the flattest slope of the roof over the eaves where the thatch was apt to rot out from the accumulation of the moisture. (This is shown in the group of cottages in illustration No. 1.) Nowadays, the whole roof is covered, but as the tiles are still left without fastening,with only their own weight to keep them in place, an earthquake or a heavy windstorm is sure to send many of them flying through the air.

A house in Japan rarely has more than one story. It consists of a rectangular space floored and covered by a massive roof resting on slender posts. The back, a blank wall, is turned to the street, as the Jap jealously guards his home life from prying eyes. If there is sufficient space, he hides his house behind a bamboo fence or a high green hedge.

The roof, the all-important feature, has wide eaves, and often a graceful curve in the rafters. In our country, owing to prevalence of machine cut timbering, a curve is an expensive luxury. A Japanese carpenter selects a large crooked tree, cutting it into suitable sections for barge board, rafters, etc., carefully retaining the natural beauty of the line. Such trees, being of no use



Fig. 3. The side of this house shows the way in which the posts rest upon exposed stones, which are slightly hollowed to receive them. Photo by Miss Ben-Yusuf.

in our saw mills, are promptly chopped up for firewood. The slope of the roof is necessarily steep in order to shed snow in winter.

A Japanese builder starts his work, not by digging a cellar, but by leveling the ground and tramping it down hard and smooth. There, as a rule, he builds his roof, on the ground, framing together the rafters, ridge, plate and cross braces, putting in large wooden pins instead of nails or spikes. When finished this is raised by many willing hands amid much merriment and singing. The few posts which are inserted under, seem far too slight to bear the weight above. Each rests on a large round stone which is firmly set in the ground (this may be seen in No. 3). The post is not fastened, simply cut at the bottom like a socket to fit the curve of the foundation stone. An earthquake may jar these posts, but rarely displaces them entirely.

The eaves are made very wide in order to turn rain away from the house and also to afford more shelter from the sun in summer. Under the eaves there is often a narrow porch, running the entire length of the house, floored with beautifully polished boards. The great rafters and enormous cross braces supporting the roof of the verandas on very large buildings, such as temples, etc., are splendidly finished with massive carving and gilding.

It is difficult for us to picture a house with but one door—the entrance door—with no windows, no partition walls inside and very little wall outside, with no furniture, beds, chairs, etc., with no furnace, stove or adequate means of warming the building, with not even a

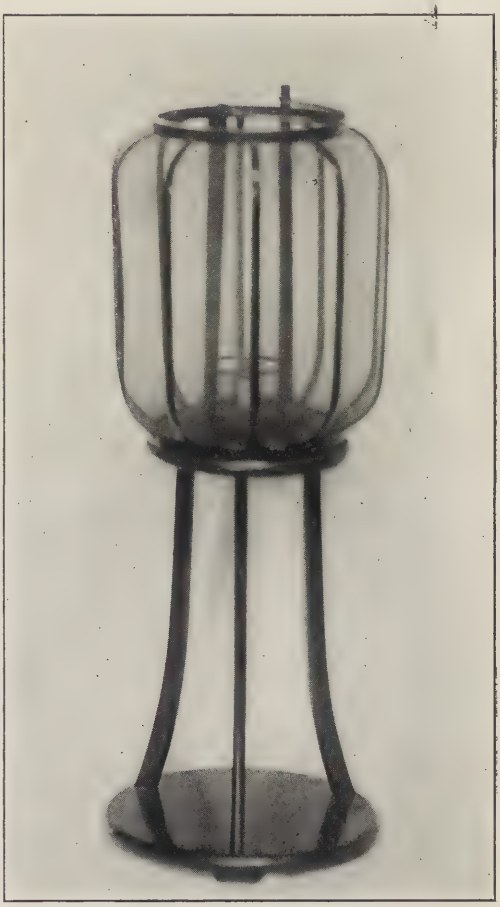


FIG. 4. A JAPANESE HOUSE LANTERN.



FIG. 5. A DECORATED VERANDA BALUSTRADE.
The rail ends are carved with the owner's crest. The building in this case is a temple.
Photo by Miss Ben-Yusuf.

chimney. Yet in such buildings, this wonderful people live in dainty comfort. A foreigner is looked upon as untidy and dirty because he brings the dust of the street into his home on his shoes and garments, and because he prefers washing his hands in his bedroom to taking a boiling hot bath in the bathroom. If we sat, ate and slept on a padded floor, we too might see the advantage of changing our footgear on entering the house!

The house is enclosed by two sets of screens, which run in grooves between the supporting posts. The inner set, the shoji, are of thin paper, tough, but semi-transparent. In fine weather the entire side of the house fronting on the garden is left open. During storms and at night, wooden shutters, ama-do, are drawn around the house, sealing it hermetically. A traveler who ventured to open one of these shutters at night to ventilate her bedroom, was gravely reprimanded by her host in the morning and informed that the police, who were supposed to guard the inmates from thieves, would not assume responsibility if a robbery occurred in a house where the ama-do were open! With thundering noise the maid shoves these screens back at daybreak. They run in grooves on the outside of the narrow balcony to the end of the house where they are stored for the day in a narrow cupboard. In the better class of houses, this is often beautifully decorated. Although the wood in the panels of these shutters is only about an eighth of an inch thick, they are practically air tight when closed. Being well seasoned and neatly joined, the wood never warps or shrinks, running without friction in these grooves year after year. The "patent ball-bearing anti-friction overhead tracks" on which our sliding doors run are unknown in Japan and the Japanese seem to get along very well without them.

The only hardware on these screens is found in the beautiful bronze pieces into which two fingers are thrust to draw them together. A fine collection of these was recently made in Japan for the benefit of an architect in this country, by a traveler who walked into shops where old bronzes were sold, calmly asking for "kara kani hiki tai," which means flush handles made of bronze for screens. A pair of these generally makes a pattern when the screens are closed.

The interior of the house has no fixed partitions, thick paper screens being set in the grooves as occasion demands. The



Fig. 6. Example of a flower arrangement. Note the way in which the stems of the pine branches rise from the bronze vase. On the sliding door may be seen the finger pieces.
Photo by Miss Ben-Yusuf.

Japanese, who deeply resent intrusive glances from an outsider, have few reserves among members of the family. How can it be otherwise with nothing but paper between the rooms? The fusami (screens) are sometimes beautifully painted, although as a rule we find no ornament in the whole house except one kakemono handing (scroll) and one vase of flowers, which are replaced by others when the owners are tired of the first. In the illustration (8)

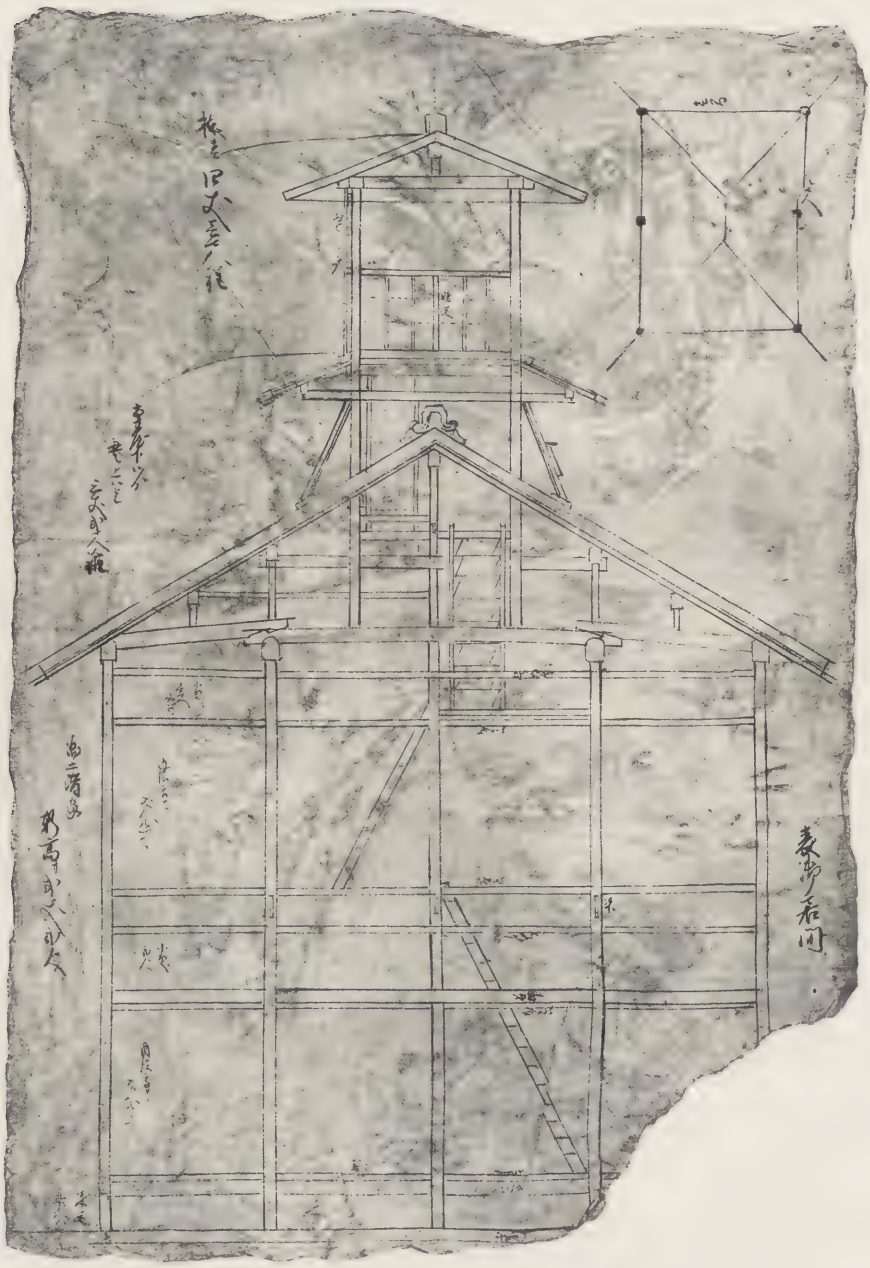


Fig. 7. Old drawing used in the construction of several buildings. The simple plan is seen above. Measurements are given, with constructional lines in red ink. The notching of the timbers, the neat framing, the simplicity of construction is remarkable. No nails are used; when absolutely necessary wooden pegs are inserted. The narrow steep stairs and slender posts are clearly shown.

we see a fusama extending the length of the house decorated with one enormous tree with drooping, wisteria-like branches. The screen panels are framed in dark wood, finished by a thorough rubbing with the naked hand to bring out the grain. The paper is covered with gold leaf put on in square patches, painted with richest browns and greens. The simple frankness of the treatment gives a seemingly conventional effect, although the drawing is true to nature and the tree of actual size.



FIG. 8. A ROOM IN A PALACE.

A fine example of this type of decoration. Two entire walls were covered with gold leaf, upon which was painted the pine tree, whose branches are continued along both walls in a vivid dark green. Photo by Miss Ben-Yusuf.

We should be miserable in a house where the slightest sound could be heard everywhere, and where at any time an inquisitive finger could poke through the wall a hole for an investigating eye. Few of us will forget our sensations in first reading Mrs. Bishop's account of her experience with the people who riddled her "bedroom wall" to see the "foreign white devil" asleep.

The entrance from the street is at one end of the long side, by a slatted door which opens into a tiny court or vestibule, with floor of earth, and little boxes at the sides into which the maid puts the shoes. From this court, one steps up in stocking feet, into a small hall-way, opening into the main house, and into the bathroom, which is always conveniently near the entrance. If there is an upper story a steep ladder-like stair runs up from this hall, the rooms nearest the stairs and entrance being "least honourable."

At the best end of the "most honorable" rooms the konoma (ornamental alcove), the floor of which is raised a step or two above that of the rest of the house. The ceiling here is of boards, carefully matched as they are sawed from the log, and exquisitely polished by long rubbing, until the full beauty of the grain is brought out. In some buildings the konoma is elaborately decorated with a paneled ceiling, much carving



FIG. 9. SUITE OF ROOMS IN A PRIVATE HOUSE.
The sliding door on the left is covered with a textile resembling silky straw. The floor shows a summer covering, woven in one piece. Photo by Miss Ben-Yusuf.



FIG. 10. RECEPTION ROOM RESERVED FOR THE USE OF THE MIKADO'S ENVOY IN AN ABBOT'S HOUSE,
Which was frequently chosen as the meeting place for warring or peaceful Daimyos.
Photo by Miss Ben-Yusuf.



FIG. 11. DINING ROOM AND RECEPTION ROOM IN A PRIVATE HOUSE.

The lower part of the sliding doors of the dining room is covered with silver-leaf paper. All the woodwork of the sliding doors is unpainted, except the frames of the sliding doors, which are lacquered.

Photo by Miss Ben-Yusuf.

and gilding, and silk screens covered with embroidery or painting. But this is rare. In most houses, the konoma contains a single kakemono, and one beautiful jar containing flowers arranged according to Japanese taste. Children are from their earliest youth trained in the art of displaying flowers. There are stringent rules for each variety, for each type of vase. Our crowded nosegays are justly regarded as a barbarous treatment of beauty. One or two sprays (firmly held at the bottom by leaden weight) forms an artistic composition. Guests are conducted to the konoma to be entertained in state.

Floors are covered with tatami (mats) of thick straw, beautifully fine and soft. Houses are always built of dimensions to fit these mats, which are one yard wide by two yards long, and are known as twelve-mat or thirty-mat houses instead of, as with us, a twelve by eighteen, or twenty-four by thirty-foot house. These mats are bound with cloth at the ends, and are when dusty shaken in the garden. Floors are constructed with a depression an inch or two deep to allow for the thickness of these mats.

There is no furniture. A few thin cushions are sometimes brought in to sit on, chair legs would leave marks on the beautiful soft tatami. Foreigners living in Japan who have not learned to seat themselves on the floor as the supple Japanese do, are obliged to put wide pieces of wood (like level rockers) under their chairs. The heel of our shoes leave an impression which may last for months.

A beautiful little table about ten inches high is also brought in. On this the maids place trays of food, which, though always artistically arranged and well served is, to our taste, insipid from lack or salt and proper flavoring.

If the day is bright and warm the



FIG. 12. INSIDE THE ENTRANCE GATE TO MISS BEN-YUSUF'S HOUSE.
On the right is the gatekeeper's room. The gate is a two-storied structure, the upper part being intended for a storehouse.
Photo by Miss Ben-Yusuf.



FIG. 13. A GOOD EXAMPLE OF THE ENCLOSED GALLERY CONTAINED IN THE BEST HOUSES. It is a protection against cold in winter, and enables visitors or servants to pass from one part of the house to the other with greater convenience. Photo by Miss Ben-Yusuf.



FIG. 14. DRAWING ROOM IN THE HOUSE OCCUPIED BY MISS BEN-YUSUF.
The furnishings are of a correct simplicity. The wall was finished in grey plaster.
Photo by Miss Ben-Yusuf.



Fig. 15. From an interesting old Japanese book containing many working drawings and plans of the country, indicating the location of the roads and various temples. Each temple is described in a decorative rectangle, directly above it. The building in the centre of this drawing is a Shinto temple in an enclosure, with terraces and gates. In front of the main building is the torii, through which one gets a vista of the sacred mirror and shrine. The trees, mountains, etc., are cleverly suggested, giving an excellent idea of the character of the landscape.

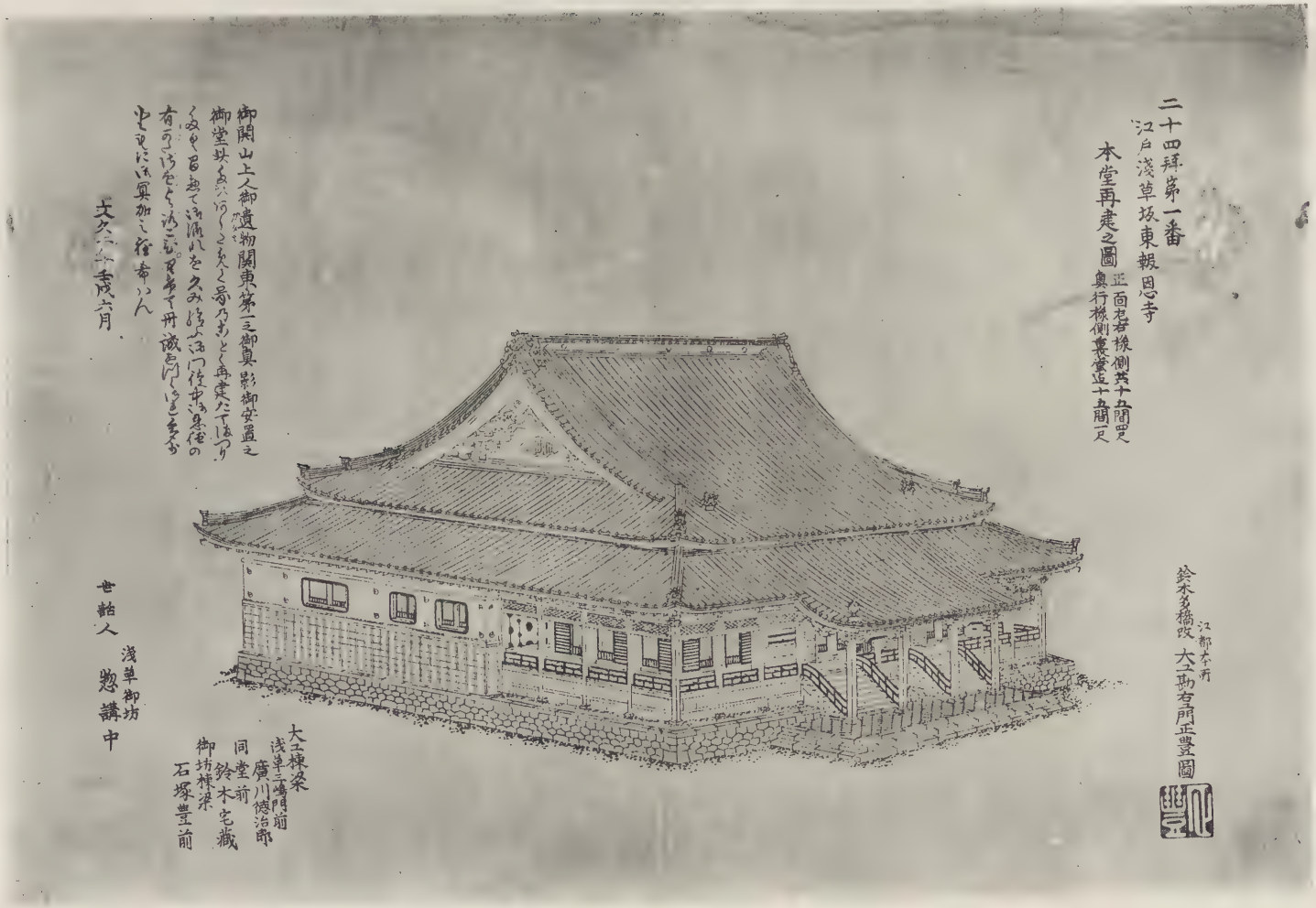


Fig. 16. Large temple with excellent roof lines, and fine piazza. The priests' quarters are snugly enclosed, the windows being barred. The beautiful ridge, the ornamental window in the gable, the simple finials, add decoration without detracting from the dignified simplicity of the whole.

whole side of the house is left open so that one can enjoy the view of the lovely garden. If the weather is chilly, a hibachi (brazier) is brought in, which serves to warm the hands and slightly temper the atmosphere immediately around. A handful of coals is but a poor substitute for a blazing hot fire, which is what their climate calls for.



FIG. 17. FURNISHINGS OF A BEDROOM IN MISS BEN-YUSUF'S HOUSE.

The screen is used only in winter to keep off draughts. In the summer a large square mosquito curtain surrounds the bed upon the floor.

Photo by Miss Ben-Yusuf.

The charcoal is started out-of-doors and there burned till the fumes disappear. Sometimes a lighted brazier is left in the room at night when the shutters are closed, deaths from this cause are not infrequent. The metal work on the hibachi is very handsome and the fire and ashes are kept in neatest order, for the Japanese reverence the purity of fire and would be shocked to see a careless person throw a match into the ashes.

The general aspect of the kitchen does not differ greatly from that of the ordinary French kitchen. It is supplied with many pots and copper utensils of familiar shape. Cooking is done on small charcoal stoves resembling those used in France. The cistern (of green pottery) in which is kept the daily supply of water is well shown in No. 26. Sometimes a hole is left in the roof, to provide an exit for smoke, as houses have no chimneys.

At night thick quilts, futon, are brought out from a cupboard at the end of the room and spread on the floor; there are, of course, no bedsteads.

The bathroom of a Japanese house is exquisitely clean. Sometimes it is in the garden, but always conveniently near the front door. The floor is of well scrubbed slats, with openings between, through which the water runs away. On this one stands, soaps, scrubs and



Fig. 18. Characteristic example of a private closet. The cement floor is paved with blue and white tiles. The opening is framed and protected in green porcelain. A natural twig has been used to make the handle of the cover.

rinses in cool water until perfectly clean. Then he jumps into the tub of scalding hot water to soak for four or five minutes. The tub is oval, of green pottery, with a partition across one end in which a small stove is set. This is lighted at about ten o'clock; about three in the afternoon, when the family are ready to bathe, the water is almost boiling hot. Everyone who has experienced this hot plunge is enthusiastic about the invigorating effect when followed by the douche of cool water, which is applied in primitive fashion by dashing on dipperfuls of fresh water from the cistern. In Japan all the members of the household in turn use the same tubful of hot water. And they have no false modesty about occupying the bathroom at the same time! A stranger within their gates takes care to secure the first bath and also to fasten the door in some way to prevent intrusion; after the bath, attired in a fresh kimono (bathrobe), reclining at his ease, enjoying a meal of soup, rice, chicken, sweets and the best of tea, he is generally quite willing to praise Japanese institutions.

No reference has been made here to the beautiful Japanese temples and castles, which are richly and wonderfully decorated. Nor have the various accessories of buildings been touched upon, the magnificent lanterns of stone, the monumental gateways, the wide flights of steps and balustrades. But of the value of these the Japanese architect is well aware.

The working drawings of a Japanese architect are most interesting, displaying beautiful lines as free and characteristic as those of a Rembrandt etching. A Japanese artist is trained from his infancy; sitting on the floor with his paper flat before him, he holds the



FIG. 19. BASKET, IRONING TOOL AND KETTLE.



FIG. 20. ONE OF THE SEVERAL GARDENS ATTACHED TO MISS BEN-YUSUF'S HOUSE.
A characteristic example of the gardens of stone and gravel. The small shrubs bore a red blossom, and white gardenias flowered in the spring. The lanterns were of grey stone.
Photo by Miss Ben-Yusuf.



FIG. 21. THE GARDEN OF A RICH MERCHANT.

brush, vertically, lightly between his fingers, working with free sweeps of his arm. Even their writing is done in this way, the lines of careful explanation to the builder forming decorative borders from top to bottom of the paper. Looking at the fine even lines of such a drawing, one imagines an array of ruling pens, squares and triangles—but not so, where he wishes to make a series of straight lines, he catches the edge of his board (or perhaps a small round ruler) with his little finger and paints in his delicate lines with great rapidity and accuracy. The materials with which he works are far better than ours, transparent handmade papers of incomparable toughness, sticks of India ink of all colors with small stones slab shaped for rubbing, and all kinds of beautifully made brushes. All these may now be purchased here and will be found of great service in an office.

Beautiful gardens accompany nearly every building in the land. Where space is limited, gardens are of miniature sizes of dwarfed trees and plants. On one city lot (of about fifty by one hundred feet) in addition to a house of comfortable dimensions, were found no less than nine separate gardens divided off from each other by bamboo fences and hedges. Gardens are always diversified by lakes, bridges, summer houses, in endless variety; when there is plenty of ground, plants and trees of ordinary size are used as in our own landscape work.



FIG. 22. KITCHEN OF A LARGE PRIVATE HOUSE.

The floor is arranged on three planes. The two upper ones serve as store places for fuel. The lowest one is stone paved. In the corner is a large stone cistern. All the cooking was done by charcoal.

Photo by Miss Ben-Yusuf.

The restrained simplicity which characterizes a Japanese house would not please the majority of Americans, whose complicated needs demand a different style throughout. As a nation we are inclined to live for show, to spend up to or even beyond the limit of our income. Simple comfort appeals to us

in theory only; an account of the simpler life seems like a charming fairy tale, not a practical example. A first impression on entering one of our over crowded houses is bewildering, unrestful. No wonder we break down with nervous prostration! A guest from the country, who saw for the first time one of these elaborate living rooms, turned to her hostess impulsively: "My dear, it is lovely, but there isn't room for your soul to grow!"

The reason for all this may be found in the complex conditions of our daily life. Amid the turmoil of the city it may be necessary, but surely in the country a simple home may be designed and maintained as a place of rest. Rest, first of all for the overtaxed mistress of the household who, after worrying half the year over the care of her city residence, finds little relaxation in the country where good servants are scarce and hordes of guests break in on her hours of ease.

A cottage of this type may be exquisite in finish and of the richest material, or it may be as inexpensive as are most of those in Japan. The difference in cost will lie in the materials selected and in the amount of skilled labor required in the construction. The same simple plan will do for both.



FIG. 23. BATHROOM IN PRIVATE HOUSE.

Cement on both sides and on the floor. The wooden floor is raised about six inches, and is easily movable so that the cement may be flushed. The waste water runs off through a sink in one corner and is carried to an open drain. The tub is of iron, set in cement, about 3½ feet deep, and is heated from the outside of the house. A wooden disk is placed at the bottom to protect the bather's feet.

Photo by Miss Ben-Yusuf.

If we faithfully endeavor to dispense with unnecessary ornament, taking thought as to the quality of the material specified and using what is selected in the plainest way, we will get happier results. In Japan the framework of the house is left exposed to view, and all woods employed are plain and square, not teased into machine run mouldings, not concealed by thick paint or shiny varnishes. Each piece is chosen for

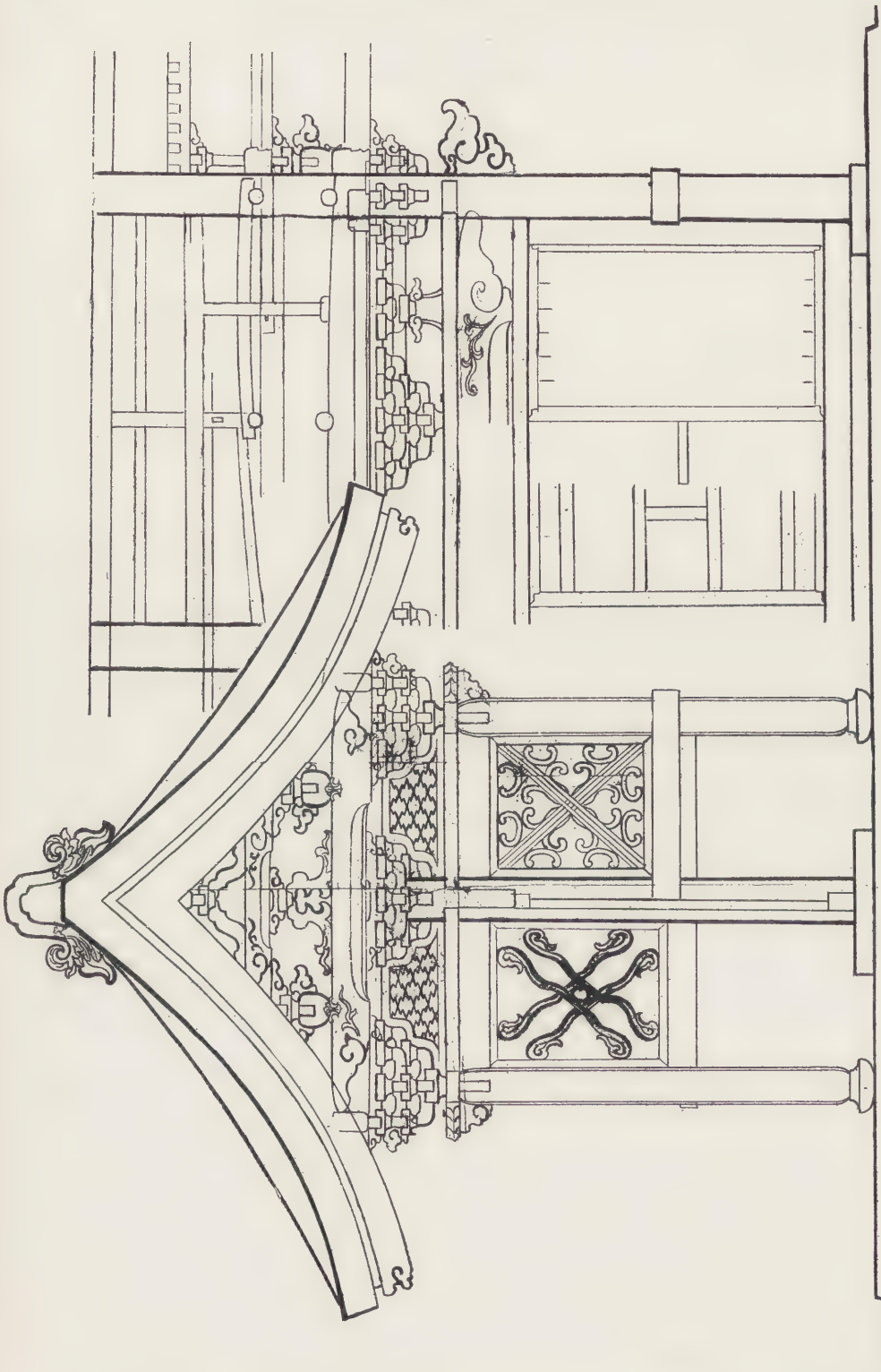


FIG. 24. FRONT AND SIDE ELEVATION OF A JAPANESE TEMPLE—WORKING DRAWING.



FIG. 25. WORKING DRAWING, SHOWING THE ELABORATE CONSTRUCTION OF THE HEAVY ROOF. THE BRACES AND POSTS SUPPORTING THE VERANDA ROOF ARE ESPECIALLY WORTHY OF NOTICE.

beauty of coloring and natural grain, which are always brought to an exquisite finish by much rubbing.

The sky line of a Japanese street full of small wooden houses is picturesque, because of their honest simplicity. In strong contrast to this is the "Main Street" of one of one of our towns, with a jagged outline of flimsy towers, gables, peaks, finials, dormers, turrets, etc., with fronts diversified by "tasty" columns and balusters, cornices, consoles, brackets and jig-saw work, all carefully defined by vivid shades and startling contrasts of particolored paint.

The general lines of a Japanese roof are extremely good, although a slight mistake will make this kind of a roof commonplace. With us a curve in the roof line is seldom attempted as one must saw out the rafters by hand. Even a slight curve, one that would hardly be noticed in execution, is a great improvement on the usual rigid line. To be truly graceful, it should of course be a "free hand" curve, carefully enlarged to the full size of the rafter. A curve drawn in the first place with corpasses can never give the same effect. One reason for the picturesqueness of old roofs lies in the fact that the rafters have settled down in a curve under the weight of the roof. Some of the palaces in Japan have interesting roofs, from which we may borrow ideas, carefully avoiding the queer little curves and quirks which suit their buildings well, but which would be quite out of place among our square and formal structures.



FIG. 26. WELL CURB IN THE COURTYARD OF AN INN.

Famous among the Japanese, but rarely visited by foreigners. The base is of green stone, and the rim of glazed green tiles.

Photo by Miss Ben-Yusuf.

In this country it is unfortunately necessary to break up the simple roof by putting in dormers, as bedrooms are always in demand. It is difficult to do this with success. Chimneys on the contrary, if massive and heavy, generally improve the skyline.

The tendency to appropriate the fea-

tures of foreign art which are the first to catch our eye, is to be deplored. From competent judges we learn that the Japanese have a high standard of art, that their work, improved by traditions extending over hundreds of years, is wonderfully fine. Straightway we conclude that all that is brought here is admirable. All the while the wily Jap is quietly sneering at our eager acceptance of what he looks upon as rubbish. Let us become familiar with the great principles which make their work excellent, and then apply them to the betterment of our own surroundings. For we can no more adapt their household furnishings without change to our own utterly different way of living than we can adopt their beautiful dress in place of our own. But after seeing one of their rooms lined with paper in monotone, we appraise one of our machine made papers at its true worth. The average "parlor" is disturbing and unrestful before any of the furniture is moved in. The ornate "trim" full of mouldings, cornices, pilasters and rosettes, thickly smeared with varnish or paint, divides the wall space into ugly panels in which a many colored paper repeats a design that is maddeningly tiresome.

A suite of rooms of this description was recently covered with a rough yellowish brown wrapping paper, which although not hand made was full of small spots and imperfections which made it interesting. The hideous "cherry" woodwork painted to match, subsided into a pleasantly unobstrusive position. The general effect of the room is now restful and curiously full of color, so well do the Japanese prints and water colors, the bits of copper and brass and the few old rugs, assert themselves against this simple background.

The same thing has been done with straw paper (the kind commonly used by



FIG. 27. EXAMPLE OF CARVED BRIDGE AND GALLERY CONNECTING ONE PART OF A LARGE HOUSE WITH ANOTHER.

The wood is left entirely unstained and unpainted. The carving, which is equally well finished on both sides, is said to have been done by a pupil of Hidaro Jingoro, who did much of the carving at Nikko. The old tree on the right is used as a roof support.

grocers), the rich golden yellow being singularly sunny and pleasing on the wall.

Papers of this kind, like the beautiful Japanese papers, are much more satisfactory than the ordinary cartridge paper which is too smooth and which owing to the fugitive nature of the dye used, fades hideously.

The avidity with which people are buying the so-called "Mission Furniture" in preference to the tortured woodwork which was the only thing "on the market" a short time ago is proof that we are not slow in showing our appreciation of the best within our reach. A revolution is under way akin to that which followed the days when perforated card mottoes and hearth rugs cross stitched with dogs or roses, were in fashion. In some countries, especially England, this change is showing marked results. Unfortunately we do not yet see the beauty of the genuine, being bourgeois enough to choose a cheap machine made copy instead of the hand made original.

Here we have the keynote which makes Japanese work harmonious and beautiful—it is genuine. Let us try to avoid shams in constructing our buildings; the frame should be of heavy timbers, left, if possible, without concealment, the woodwork throughout selected for beauty of grain and simply rubbed to a dull polish, the roof should be covered with permanent material and be massive and weather tight.



FIG. 28. EXTERIOR OF A SMALL TEMPLE.

Showing the lines of a decorated roof, finished in grey tiles. The lanterns are of stone and bronze.

Of course, we must have solid walls and windows to protect us from heat and cold; our polished floors are better than the soft matting, and our generous open fireplaces, than the picturesque but inadequate brazier. But all these must be included in a house which, while perfectly comfortable and convenient, shall be as genuinely simple and beautiful, as free from shams as the best to be found in Japan.

Katharine C. Budd.

The House of Senator Clark

Architectural Aberration No. 21

A casual criticism in a weekly paper not long ago observed that the Clark house, which has been standing unfinished so long and inviting speculation at the corner of Fifth Avenue and Seventy-seventh Street, would have been an appropriate residence for the late P. T. Barnum. Therein the casual critic criticised better than he knew, for thereby hangs a tale. Barnum did build a house. In fact, he built two. But the later, "Waldmere," was a decent and inoffensive villa, such as any prosperous Bridgeporter might have erected for himself at the date of its erection without exciting wonder. Its predecessor, "Iranistan," was distinctly projected as an advertisement, and an adjunct to the "show business," in the interest of which the owner trotted out an elephant to plow his grounds in sight of the New York and New Haven trains, as often as these went by. This ostentatious addiction of the elephant to agricultural pursuits elicited letters to the owner, inquiring about the animal's utility, and in particular how much he could draw, whereto the genial old humbug was accustomed to make answer that he had calculated the plow-elephant would draw twenty thousand people to the show! But that is another story. The story of the house is that Barnum's agent went to an architect in New York, then young and struggling, now aged and eminent, and explained his principal's desires. The architect, in whose professional equipment a sense of humor was included, saw at once what the showman desired, and hilariously determined to give it to him.

> In Xanadu did Kubla Khan
> A stately pleasure dome decree.

Taking his cue from the name he projected an Oriental pipe dream of a sham palace, breaking out at top into an extravaganza of towers and domes in lath. The client was enchanted when the agent showed him the drawings, and the work proceeded under local superintendence at the site. Years afterwards, the architect happened to be in Bridgeport, and took an excursion to the result of his own machinations. According to his own report, he found it ridiculous beyond his most sanguine hopes and the Mephistopheles within him suggested a call. The door was opened by the showman himself, to whom the stranger explained that he had been struck by the beauty of the edifice, and desired to know the name of the architect. True to his professional instincts, the showman declared that the design of the house had been the subject of an international competition, and that he had paid $10,000 for architect's fees. At that,—"No, you didn't," broke out the indignant visitor, and with characteristic quickness the showman rejoined, "Is your name ———?" (which it was)—"Come in."

That was the day of small things. Certainly the owner of this latest piece of showman's architecture has not gotten off for the figure to which the Barnumic imagination stretched his expenditure for architecture. The commission has served to split an American firm of architects into its constituent atoms, and to "compromise" an eminent French architect. The general belief has been that it was the eminent M. Déglane who sold the Gold Brick to the Copper King, and that all the "Johnny-on-the-spot," if we may use so cheap an expression about so expensive a work, had to do was to superintend the execution of the imported and imposed design. A recent statement, however, which has the air of authenticity, from the local architect, explains that this is not the case, and that the only responsibility M. Déglane had about the actual design was that he "approved" it. To be sure, that responsibility is sufficiently heavy. But we knew already that French artists, sculptors as well as architects, decline to take a very serious



AN ARCHITECTURAL ABERRATION—THE HOUSE OF SENATOR CLARK.
Fifth Avenue and 78th Street, New York City.

view of the artistic requirements of American millionaires. There is a conspicuous piece of sculpture in Brooklyn, modelled by an American, it is true, but evidently under French influence, which bears manifest testimony to this truth. One can almost see the sculptor at work modelling it, amid the plaudits of his French studio-companions, not one of whom would have ventured to propose it for a French municipality, but who encouraged the sculptor to do it for an American municipality by such cries of sympathy and encouragement as "Give it to 'em," "Serves 'em right," or the equivalent of such expressions in Parisian studio-slang, "Epatez les bourgeois" par exemple. Similarly one must assume that the eminent M. Déglane would not have proposed this structure for a Parisian "particular hotel," although in truth it would be more seemly there than in the surroundings to which it has been transplanted. But that is no reason why he should not have considered that it served the Yankee owner right.

What, of course, strikes everybody first about the house is its huge pretentiousness, what you might call its rocky cheek. It is, as the cheerful Lawson, picking his words with his usual success, calls it, the "biggest, boldest, brassiest" example of American domestic architecture. It is true, and the fact is so far redeeming, that it also has great massiveness along with its brassiness, and gives promise of a long endurance. Should its room come to be recognized as better than its company, it will be correspondingly costly to demolish. Possibly the next most costly house on the Avenue is that of Mr. Carnegie, designed quite on the opposite and British principle of the avoidance of pretense. The "Steel King" is said to have instructed his architects that he distinctly did not want and would not have "a palace," as he distinctly has not got one. The Copper—or shall we follow Lawson and say Brass—King, seems to have instructed his that he did not want and would have anything else, and they have bettered his instructions. The modesty and retirement of the Carnegie house are emphasized by the ample foreground of reservation behind which the mansion shrinks, an enormously costly expedient for preserving comparative privacy, which is characteristically British, in the manner of the British owner who is willing to spend more money to avoid pretensions than it would cost to have them. Nobody would think of calling the resulting homeliness beautiful, but nobody could fail to recognize it as gentlemanlike. It takes a back place and talks in a low tone, while the other, on tiptoe at the building line, and "built to the limit" yells, "Come and look at me."

"Built to the limit" is not quite true. At the north end of the seventy-five feet frontage on the Avenue, at the east end of the two hundred feet or so of frontage on the street, the extremities decline and retreat. But this declension and retreat throw out all the more into the street and the avenue the central mass which they frame, push it forward like an obtrusive umbrella into the public eye. That would be well enough, perhaps, if the motive of the avenue front, the order "distyle in antis," had been merely repeated at the centre of the longer front and its plane. That would have resulted, really, in a colorable imitation of the Faubourg St. Germain, in so far as the hotel of the Faubourg, secluded "entre cour et jardin" can be guessed behind its jealous screen, instead of being turned out naked into the street, with the effect of indecent exposure. This effect is greatly heightened by the bulging of the central feature on the street front, with no discoverable or imaginable motive but to force it more unescapably on the public view. One may protrude a bay to gain a better and more commanding view for the inmates. But in that case one does not proceed to block up and shut out the view by withdrawing the sides of the bay to the bottoms of reveals as deep as the order, thus nullifying the whole arrangement. It is impossible to attribute to the bulging of the central feature on the long front any more artistic or creditable motive than to obtrude it on public notice.

Meanwhile, there is a feature that might be properly protruded, granting the propriety of its existence at all. That

is the steeple, belvidere, or what not, two-thirds of the way down the side street. The crowning lantern of this and much of what might be called the belfry stage are visible all over Central Park, and much of the up-town region, where they "advertise mystery and invite speculation" upon what sort of meeting-house can possibly have been of late erected in the region indicated. Nobody could possibly infer from the size, shape or treatment of this crowning member that it denoted a dwelling house. But, when one comes near the actual site, the steeple is rendered invisible by being withdrawn, one might almost say modestly, far behind the plane of the front, and left without visible means of support. In fact, instead of the emphatic solid one has the right to expect, if not to demand, as the basis of such an erection, it is represented, in the plane of the front wall, by precisely the largest, and by reason of its treatment as well of its dimensions, the weakest void in the whole edifice, the great arched opening which has at its base the ferociously corbelled balcony projected, at a huge cost in stone cutting, most obviously to carry nothing but itself. A more meaningless and fatuous feature than this steeple it would be impossible to find, even in the wildest vagaries of our domestic architecture. It is entirely without architectural relation to anything else in the building. It is devoid of apparent use as of meaning or beauty. No human creature can decently pretend to admire anything about it.

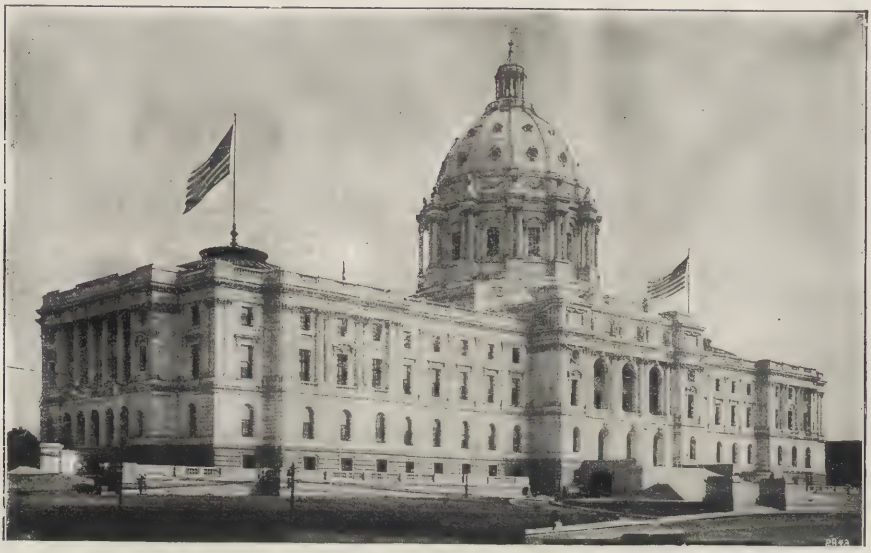
Justice, it is true, requires the admission that the massiveness is apparent as well as real. The angle piers are of unusual breadth and power. The relation of voids and solids gives the sense of openings really framed—a sense which is worth having, perhaps, even at the cost of also having interiors gloomily dark which practically require lighting from the outside. The treatment, in the matter of stone cutting, is adapted to promote this sense of massiveness, to promote it to a rivalry in this respect with the fortified palazzos of Florence, let alone the degenerate chateaux of the Ludovican period in France. The ferocity of the stone cutting is, in fact, so unmitigated that the basement seems to have had as its prototype rather a log-house than any extant construction of masonry. Justice, again, requires it to be said that the designer appears to know his style. If he everywhere overbloats his detail and exaggerates his scale, until the effect is what he might call "gonflé" or "bombé," yet the esteemed M. Déglane, if his approval was limited to deciding that the thing was "grammatical," would probably not have been justified in withholding that approval. Only, there is not a bit of this detail upon which any human creature can pretend, again, to look with pleasure. A certified check to the amount of all this stone carving, hung on the outer wall, would serve every artistic purpose attained by the carving itself. The comment the spectator is moved to make, and must make, is only the comment of Mrs. Carlyle's famous housemaid on the Sistine Madonna:—"Lor', Mum. How expensive."

Unfortunately, no degree of vulgarity, of "boldness and brassiness," can make a New York house an "aberration," in the dictionary meaning of "a deviation from the customary structure or type." Or at least it would not have done so a few years ago. But the Copper King and his architect seem unaware that boldness and brassiness are going out of fashion in house building, and that modesty and a sense of home-like seclusion are coming in. The Clark mansion would have been centrally "in it" half a dozen years ago, when it was projected. But it will be hopelessly "out of it" when it comes to be completed, and antiquated and old-fashioned while it is still brand new. Which will be the most just and severe Nemesis that could possibly overtake an edifice which could at no time have any better claim upon anybody's attention than that it was in the height of the mode.

Minnesota State Capitol*

The careful article which Mr. Kenyon Cox has devoted to the new State capitol of Minnesota* deserves the attention of every person who is interested in contemporary architecture. Here is a building which, judged by the very clear and fairly large photographs, twenty of which are before me, is simply one more added to the host of public buildings copied from late neo-classic architecture of Europe; and one not strikingly different, in kind or in quality, from many others. And yet Mr. Cox, visiting the building, is delighted with it and continues, throughout his article, to praise it in a way which it is not fair to call extravagant, but which is, at all events, remarkably warm and unhesitating when applied to a copied building. These things are matters of opinion, and my purpose in this article is merely to point out how very different the opinions of some persons may be from those opinions announced by Mr. Cox. Differences of opinion—that is all—for Mr. Cox would not object to my calling it a copied building; he speaks of it again and again as having that characteristic, and the cupola which he praises more ardently than any other part of the exterior design he calls in more than one case, "a derivative" or "a reminiscence."

Now there are two ways in which a person who finds such a building a distress to him may feel his disappointment, may feel it as a new snub to his best dreams and hopes. He may feel that it is a shame and a sin (not in this or in another architect, but in the community, the committee, the popular taste) to go on perpetuating these copies of copies of copies of a decadent style. Or, again, he may feel that, even to begin with this style, or another inferior and mechanical style, it would be practicable to vary it, to remodel it in part—to remodel it a little more in each new case, until it is new made. Let us not stop to ask, now, whether a good and fresh style can arise



THE NEW STATE CAPITOL OF MINNESOTA.
St. Paul, Minn. Cass Gilbert, Architect.

*See Record for August, 1905.



THE DOME OF ST. PETER'S IN ROME.

out of a poor and relatively unmeaning old one, like this seventeenth century Italian crossed by eighteenth century French; the thing to do is to try—when the late neo-classic is ordered—to try to remake it for the needs of the new building. And each new structure which goes up without the appearance of such remaking, by means of original thought given to the work, is just one more disappointment.

This article is announced as an examination of Mr. Cox's paper, and therefore it will be well to follow that paper rather closely. And first, in the first paragraph of the article, it will be best to pass over such general remarks as "one of the most imposing and beautiful of modern classical buildings" and to come to a more definite statement such as this: "When its white dome first swims into view there is a shock of surprise, then a rapidly growing delight in its pure beauty." Now it is true that when a rather large, white cupola is seen from a distance, it is an attractive object, like a natural hill, or peak, or detached rock. It catches the light beautifully, and it has the special charm of being the work of man. The natural hill has one beauty, the cupola has another—namely, that of uniform and calculated curvature, smooth surface, and determined breaks and modifications of the surface;—and then it is a work of art and not a natural phenomenon, and as such claims attention from the sons of men. This distant charm, however, is rather apart from its architectural merit. The dome of the capitol at Washington is attractive in just that way. As you approach the city and as you leave the city, its tall white mass is as imposing as one may wish. From a distance of four miles it is really a beautiful object; but I do not know that it is praised by the most ardent admirer of the American neo-classic as being much of a design. The cupola of St. Peter's is beautiful, indeed, as Mr. Cox points out; but does it follow that a recent cupola closely copied from that great one at Rome and put to very different work, should be in itself meritorious? Some beauty it will retain; nor will the handling of an intelligent architect, a man with initiative and with critical judgment, so mar the original conception that the smaller copy shall be spoiled altogether.

To begin, then, with the dome, which, as we have found, is the subject of the first two or three paragraphs of Mr. Cox's article, and comparing three original and rather large photographs of it with five or six of St. Peter's at Rome, I find only these differences; St. Peter's dome is more rounded, more bulbous; that of Minnesota is somewhat more nearly conical, it tapers more rapidly. Then the drum or tambour, that is, the vertical wall carrying this rounded shell, is in the Roman instance fourteen-sided and adorned with fourteen projecting *ressauts*, with two columns supporting each; while the Minnesota dome has but 10 sides and 10 buttress-like projections. Now, the result is that the columns and their projecting bits of entablature are seen in Rome to be the adornments of a generally circular tower, whose rounding they hardly affect—appearing as graceful ornaments upon its sweep, and leaving one a little in doubt whether it is a circular or a many-sided edifice which they flank. This would not be true if said of the American cupola, for there the tambour is announced to all the world as polygonal in character, even though the actual wall of the drum be circular. The projecting masses of entablature and coupled columns crowned by eagles, repeated by pronounced ribs in relief upon the shell of the dome, are very much more in evidence than those of the Roman original, from the very fact of their being so few in number; each one relatively more important. I see at one look, from a given point of view, 8 ribs springing from 8 *ressauts* when I look at St. Peter's; I see but 6 when I look at the Minnesota cupola; and it seems evident that this is a serious defect in the American example, lowering it at once quite immeasurably from the high standard of grace established by the dome of Michelangelo.

And let us consider here one of the troubles which the copyists have to meet: If they copy a very fine thing, a subtile and delicate design, they can hardly



THE CHURCH OF ST. PAUL'S IN LONDON.

help altering it *for the worse*. All the examples point to that conclusion.

I think that these remarks may apply also to the lantern upon the cupola, which is in itself a huge structure. It is perhaps 70 feet high in Rome, without counting the enormous copper ball; perhaps (this is a mere inference) 50 feet high in St. Paul. It is, in short, a very important detail and one not to be overlooked. The Occidental lantern is rather closely copied from the Roman example; but it seems as if every change made in it were for the worse. What one notices especially is the subordination of the coupled columns in the Roman lantern and the apparent sufficiency of the mass imposed upon them—features which are not noticeable in the American building. To me they are a real annoyance—those twenty-foot columns of the lantern with so little weight on them; and I think, How much better it would have been to have copied St. Peter's, out and out.

It is the most natural thing in the world that the copying, after 400 years, in a wholly different community and climate, for other and very dissimilar purposes, and on a very different scale, of a recognized masterpiece should end in confusions of this sort. St. Peter's dome was designed as the culmination (I had almost written the *apex*) of a square building with four equal apses; measuring, from out to out of two opposite apses, about 458 feet. Each side of the square measures about 324 feet; each apse projects about 67 feet, and covers, with its mighty abutments or flanking masses, at least 185 feet of one side of the square; the plan called Michelangelo's plan has, indeed, a portico built around the eastern apse, but without increasing its projection. Out of the four-lobed plan rises a drum about 187 feet in outside diameter, which carries a cupola rising to a height of 420 feet above the site, the masonry alone being considered. It is, then, a monument, seemingly higher than wide and really almost as high as wide, even in the extreme measurement over the apses. It has an almost pyramidal outline; for each of the apses is roofed below the starting of the drum; this effect (which is also the effect intended), wholly lost to those who look at the church from the Piazza San Pietro, being perfectly visible from the northwest, where the ground is high near the Papal Mint, and at the edge of the Vatican gardens. The great central mass dominates completely; the drum seems almost to spring direct from the ground, so well accentuated are the upward lines of the square which carries it. And that cupola was designed for *that* place—not for the flat top of a long and narrow structure like Carlo Maderno's nave of that same St. Peter's Church, or like one of our American state-houses.

It would seem really, as if the easier way for modern men to work, if they mean to go on copying, would be to take a structure of somewhere near the size and cost of their own intended edifice (taking not one feature alone, but the whole design), and then should try to give it an original treatment. It is nearly in that way that the styles of architecture have developed; and since, in these twentieth century copies of the great past, original treatment is the last thing expected, the last thing tried, the last thing suggested to the designer, why, it behooves the designer to be all the more particular as to what he copies, and not to hoist the dome of a monumental "round church" upon the roof of a long and narrow building of several stories—a modification of some public palazzo to which the architect would never have consented to attach a lofty dome.

The next point made by Mr. Cox is to be found on page 97, and deals with the relation of the cupola to the main structure, calling attention to the abandonment of the pediment for the two fronts. and asserting that the dome in its combination with the building which it crowns seems to him "more entirely successful than in any other important example which I can recall." But, indeed, it is not unusual to leave out the pediment. In fact, it is not usual to have a pediment, except where there is a double-pitched roof behind it. St. Peter's, with its flat terrace roofs and its only just visible pitched roofs of ribbed tile, only shows the pediment when you look at the poor and late front which

faces the east, a thing never dreamed of when Bramante, and then Antonio da San Gallo, and after him Michelangelo worked at the design. And that pediment is relieved against the high attic much higher than the peak of the pediment, which therefore does not count at all on the effect. So with St. Paul's Cathedral in London—the pediment is so far below the rising mass which carries the cupola that it does not interfere with its lines; so with the Pantheon in Paris; and in each one of these buildings the cupola is set far back from the west front, set back by the whole length of the nave, an arrangement which is made necessary by the cruciform plan of the church, with the dome set over the crossing. In the American building the fronts are close to the vertical line of the drum, which, therefore, almost rises out of them; and it would have been a great mistake to put a pediment there. But then, is that mistake commonly made? Are there not about thirty State Houses and a hundred Court Houses in America on which the cupola is set in the middle of a long parallelogram with its two fronts on the axis of the dome and close to it, in which fronts, accordingly, the pediment is omitted?

It cannot be thought that we have good criticism in the phrase (page 97) "A great Renaissance dome above a rigidly classical pediment." Even if we allow the term "Renaissance" to be applied to an eighteenth century building, wherein is that Panthéon dome less classical than the pediment? The one is the rounded vault of the Roman Pantheon a good deal changed, having passed through just four hundred years (1420-1820) of modernizing; the other is the natural and necessary triangle at the end of a long double-pitched roof, changed as much in its way and for the same reasons as the dome itself. But, indeed, the case is not as the words imply—the question is not of a pediment close upon a great cupola, at its foot. The Panthéon dome is more than twice its own diameter away from the face of the pediment. The whole nave, the enormous porch of entrance, the deep portico, are in projection westward from the outside of the square which carries the dome.

Still, considering the cupola and its relation to the building, let it be said at once that there is abundant room for long-continued and patient thought in doing even such a piece of copying as this. No one knows until he tries it how, in the preliminary studies, the height, the projection, the curve is changed, is built out, is pushed in, is raised, is lowered, is manipulated in a hundred ways until approximate satisfaction results. The point is that this laborious thinking out of a problem which is not worth thinking out is the most saddening part of modern architecture. To think of the devoted and long-continued study given to a thing which will be recognized, after all, by its most ardent admirer as a "reminiscence of Michelangelo's masterwork"!

Russell Sturgis.

Arbor Lodge

The Morton Family Estate

The interest aroused by such a place as "Arbor Lodge" is very far from being exclusively architectural. Indeed, its interest cannot even be principally architectural. "Arbor Lodge" is one of the few estates situated to the west of the Mississippi River which has a history and which embodies an idea; and it has a history because it embodies an idea. Its founder, Mr. J. Sterling Morton, settled in Nebraska in 1854, when the country roundabout was an uncultivated and treeless prairie. Mr. Morton understood with more energy than any of his neighbors that without trees those prairies could not become either thoroughly good for agricultural purposes or thoroughly fitted for human habitation; and he zealously preached and practiced this idea throughout his life. If that part of the West in which Mr. Morton lived and in which Arbor Lodge is situated wears a wholly different aspect from the aspect which it wore in 1854, the difference is the result more of the planting of the trees than it is of the cultivation of the soil, the division of the land, and the building of houses. Whereas in the East and in many other parts of the West the great preliminary American work was that of ruthlessly exterminating the forest, the most necessary preliminary task in the prairie land was that of bestowing shade, depth, coolness and color upon the countryside by the planting of trees. Arbor Lodge as an estate was founded and reared in the interest of arboriculture. Mr. J. Sterling Morton began to plant trees as soon as he began to live on the land; and the history of the estate is the history of the way in which this idea was carried out.

The value of the work which Mr. Morton did to the West can scarcely be over-estimated. Just as so many of his fellow-countrymen are above all tree-destroyers, so he was above all a lover, almost a worshiper, of trees; and such a mental attitude was a wholesome and necessary one in relation to the needs of the country in which he lived. In other parts of the United States it has considerably less justification, and there are localities in which the tree-worshiper may do very much more harm than good. However that may be, the reader will now appreciate the application of our preliminary remark that the interest of such a place as "Arbor Lodge" was not chiefly architectural. The place has been laid out and planted rather than as a tree-farm than as a park, and the architectural relation of the house to an estate laid out in this way is bound to be somewhat incidental. Indeed, "Arbor Lodge" was during the life of its founder more than anything else a farm, which was cultivated not for pleasure like the estates of Eastern millionaires, but for profit, and it retains under the conditions of to-day the atmosphere of a farm. The founder of Arbor Lodge is dead, but the place has been maintained by his sons, Paul and Joy Morton, who regard it as the homestead or family residence. They no longer live even partially upon its produce; but they continue to cherish the idea with which their father's name is associated, and they continue to regard it as a farm as well as a country residence. The old house has recently been enlarged and made somewhat more pretentious architecturally, but it has not fundamentally been changed. If the reader will consult the plan which is printed herewith, he will observe that the house consists of two divisions. The larger division embellished by the three porches is the newer portion of the house, while the rear wing, in which the rooms are smaller, is what remains of the original Arbor Lodge. The only illustration in which the old house can be seen is one showing a side view of the building taken from below the terraces. The glimpse of the old house, which this



ARBOR LODGE—THE ESTATE OF THE MORTON FAMILY. Jarvis Hunt, Architect.

Nebraska City, Nebraska.



ARBOR LODGE FROM THE GARDEN.

Nebraska City, Nebraska.

Jarvis Hunt, Architect.



THE GARDEN OF ARBOR LODGE.

Nebraska City, Nebraska. Jarvis Hunt, Architect.

photograph affords intimates that it was not without some good lines and proportions and that it possessed a quality of homely propriety, which is, after all, one of the greatest merits that a private dwelling can possess. It is better that the house in which a man lives should be appropriate and comfortable than that it should be beautiful; and Mr. J. Sterling Morton's homestead expresses admirably

late colonial or neo-classic characteristics. The reconstructed house, however, would have harmonized better with the old house, in case the new design had preserved more of the discreet quality of the good colonial architecture. The big porches running up through two stories and dominating by their scale and detail the design of the whole addition—these porches are too conspicuous in the total



THE PARK AT ARBOR LODGE.

Nebraska City, Nebraska. Jarvis Hunt, Architect.

the simplicity and the sincerity of the man's own life.

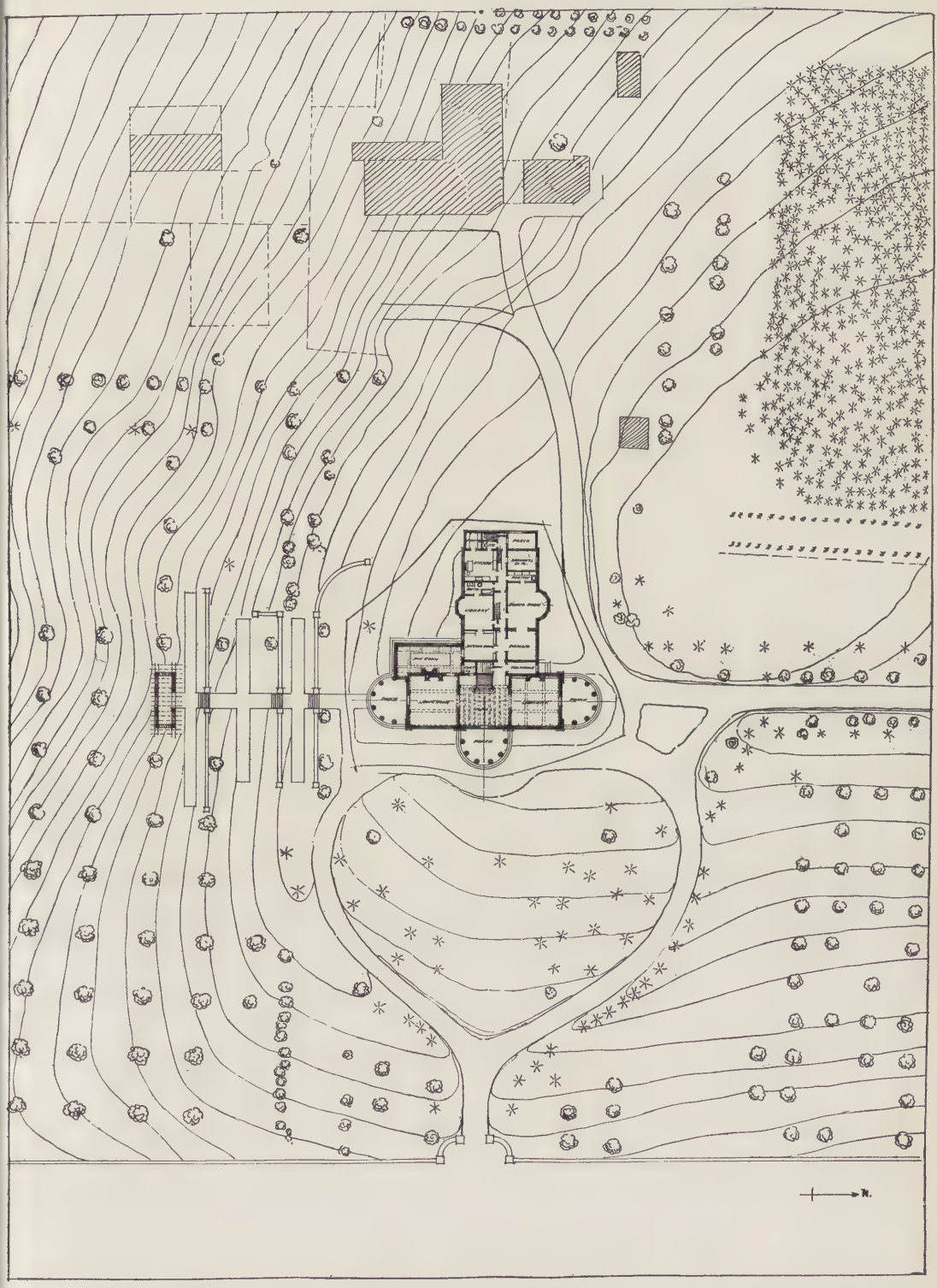
I have said that the porticoed extension, which has recently been added to the house, has not fundamentally changed its character; and this statement is true in the sense that there is no marked incongruity between the original building and the addition. If the homestead was to receive an architectural embellishment which was to make it look like a gentleman's residence rather than a farm-house that embellishment was bound to assume

effect of the building. But conspicuous as they are, and over-emphasizing as they do the new uses to which the house is put, it must be added that these big porches associate the new Arbor Lodge with its only analogue in the history of American domestic architecture. Although its present owners are no longer farmers in the sense that their father liked to call himself a farmer, Arbor Lodge must preserve the appearance and tradition of a farm. It is the farm of a gentleman farmer, and the only gentle-



THE PORCH AT ARBOR LODGE.

Nebraska City, Nebraska. Jarvis Hunt, Architect.



Nebraska City, Nebraska. THE PLAN OF ARBOR LODGE. **Jarvis Hunt, Architect.**



THE HALL OF ARBOR LODGE.

Nebraska City, Nebraska.

Jarvis Hunt, Architect.



THE LIBRARY AT ARBOR LODGE.

Nebraska City, Nebraska.

Jarvis Hunt, Architect.



THE LIVING-ROOM AT ARBOR LODGE.

Nebraska City, Nebraska. Jarvis Hunt, Architect.

men farmers, who ever flourished for many years on American soil, were men who lived in a variation of this type of residence.

The plan of the addition to Arbor Lodge is simple, convenient and effective. The main entrance leads into a large hallway, panelled in white, with a large stairway directly in front as its main architectural feature. The effect of this entrance hallway is in general colonial, particularly so far as the stairs and the stair-railing contribute to it, but it is colonial with many differences. The heavy timbers of the ceiling, and of curve which spans the stairway are not in the least colonial, and neither is the character of the panelling or the detail of the mouldings. The effect which the room gives is more spacious and free than is usual in colonial hallways, and less attention has been paid to mere cabinet-maker's detail. The living-room opens off to the left of the entrance hall, and the library to the right, the large doorways of both of these apartments being on the same axis. Neither of them possess much personal quality, which is natural enough in the rooms of a house which does not belong to an individual, but are only occasionally occupied by the different members of a family; and of the two the library is the more attractive. The living-room is, in fact, the only room in the house which has not been treated in an appropriately simple and correct way. It is rather too dressy for the rest of the house, and it was a mistake not to design the door frame so that it would completely fill the space enclosed by the pilasters and the cornice. The little slips of wall-paper by which the door frame is surrounded make unnecessarily ugly streaks on the wall. This mistake is frequently committed in rooms which are not carefully designed; and it is a mistake which is easily and cheaply remedied. On the whole, however, the interior is in keeping with the exterior, and "Arbor Lodge" inside and out can enter upon its duties as both the embodiment of an admirable tradition and as the common residence of a family whose active life leads them elsewhere—it can assume this dual rôle excellently equipped for the part it has to play.





THE BUILDING OF THE FIRST NATIONAL BANK.

Chicago, Ill. D. H. Burnham & Co, Architects.

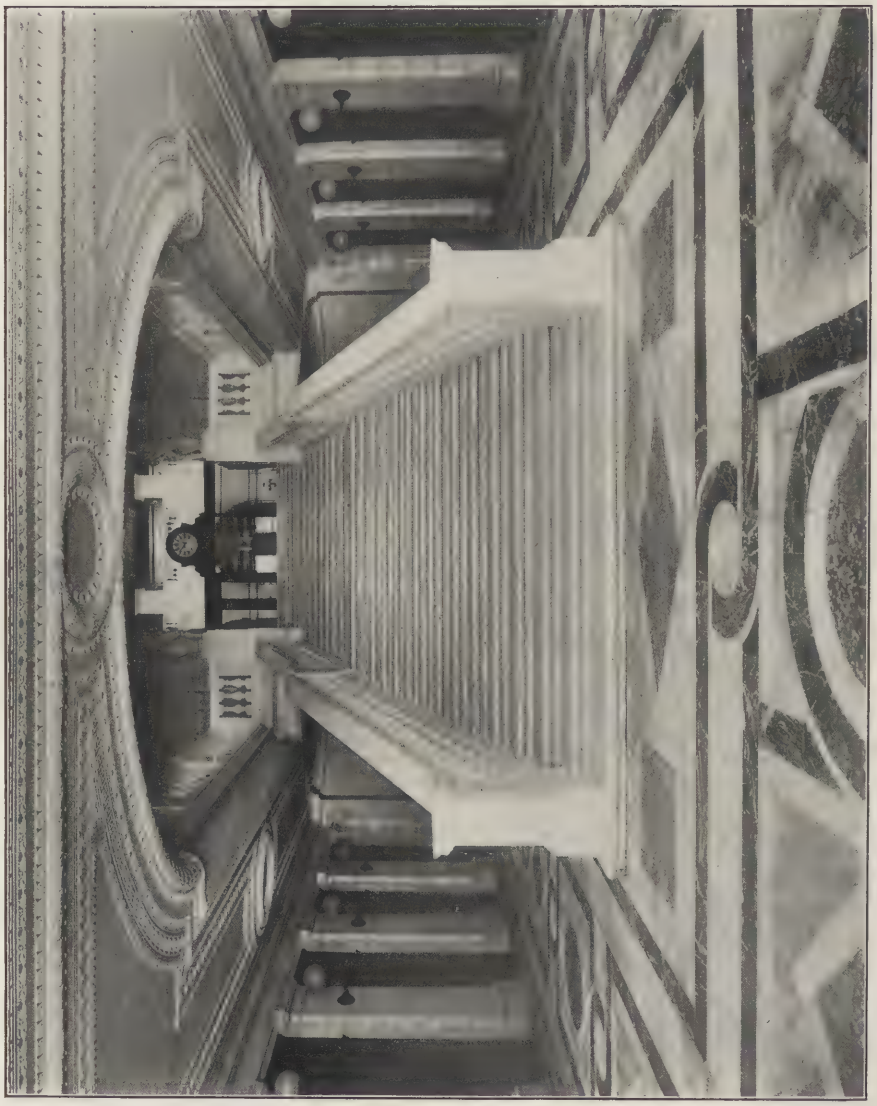
The Building of the First National Bank of Chicago

A bank which proposes to erect a permanent habitation on expensive land in a large city is confronted by two alternatives. It can either build a one or two-story structure for its own exclusive occupancy, or else it can utilize its expensive site to the uttermost by putting up a sky-scraper, the upper portion of which can be leased at large rentals. The selection of either one of these alternatives does not seem to depend upon clear and definite business reasons. The officers of banks, situated in the same parts of the same city, when confronted by the necessity of this decision reach under similar conditions entirely different conclusions. In New York Speyer Bros. erect a three-story building on Pine street just large enough for their own business, while Kuhn, Loeb & Co. prefer to build a twenty-story structure on the same street at about the same time. In a similar way the Park National and the Chemical National Banks of New York are content with low buildings, while the Hanover National and the International Banking Corporation elect to build as high as is economically possible on the sites which they own. So it is in Chicago. Banks like the Chicago National and the Illinois Trust & Savings Bank erect buildings, in which an elevator is no more necessary than it is in a private house, while the First National sees a



THE BANKING OFFICE OF THE FIRST NATIONAL BANK.

Chicago, Ill. D. H. Burnham & Co., Architects.



THE LOBBY OF THE FIRST NATIONAL BANK BUILDING.
Chicago, Ill. D. H. Burnham & Co., Architects.



THE BANKING OFFICES OF THE FIRST NATIONAL BANK.
D. H. Burnham & Co., Architects.
Chicago, Ill.

larger profit in occupying only the lower floors of a seventeen-story sky-scraper. A corresponding divergence of policy is exhibited by the banks in all the large cities of the Union, and in advance of the actual decision, no one can tell what view the directors of a bank will take of the comparative economic merits of a high or a low banking office.

Whether, however, the officials of the bank elect to build a high or a low edifice, their decision either in the one direction or the other brings with it certain consequences. A bank which erects a building exclusively for its own occupancy has in the persons of its managers reached the conclusion that the larger rent which it must thereby pay for its offices is well spent; and there are only two ways in which it can secure a good value for this larger expenditure. By erecting a low building in which the large general office runs for the most part up to the roof, it can sometimes obtain by means of skylights offices which are better lighted. Such is not necessarily the case, but the extreme desirability of plenty of good light for an office situated on the narrow, dark streets of a crowded city has undoubtedly had a great deal to do with the erection of low buildings by many banks. The other way, in which it can obtain some return for its larger expenditure on rent, is less palpable and perhaps more doubtful. The officials of many banks apparently believe that exclusive occupation of one building adds to the dignity and prestige of the bank as a public institution. Such a building constitutes, in their opinion, a more impressive advertisement of financial exuberance and stability than would be



THE BANKING OFFICES OF THE FIRST NATIONAL BANK.

Chicago, Ill. D. H. Burnham & Co., Architects.



THE BANKING OFFICES OF THE FIRST NATIONAL BANK.

Chicago, Ill. D. H. Burnham & Co., Architects.



THE BANKING OFFICES OF THE FIRST NATIONAL BANK.

Chicago, Ill. D. H. Burnham & Co., Architects.

the most towering "sky-scraper," and in order to make this advertisement the more impressive, they are willing to spend a great deal of money upon the architecture of their offices. It becomes generally an affair of marble columns, a dome, mural decorations, and details of palatial gorgeousness. If there is anything in the idea of the advertising value of an exclusive office, the idea certainly assets. No private investor would dream of erecting a two or three-story building upon property which was worth $100 a square foot or more, and if a bank assumes the same attitude in this respect toward the improvement of its property, it is surely taking the more business-like and sensible part. What strikes one about such a building as that of the First National Bank of Chicago, illus-



THE SAFES OF THE FIRST NATIONAL BANK.

Chicago, Ill. D. H. Burnham & Co., Architects.

demands that the gold should not be spared in making the advertisement effective.

One gets the impression, however, that these domed, columned and gilded buildings somewhat overemphasize the institutional aspect of an important bank. A bank is at bottom a business concern like another, and propriety at least suggests that it should be as business-like in planning its habitation as it is lending its trated herewith, is just its appropriately business-like and sensible demeanor. Money has been freely spent in order to obtain good materials, every possible convenience and comfort, solid workmanship, and permanent results. The building is substantial and serviceable, and it obtains as much dignity from its utilitarian propriety as many other buildings obtain from classic orders and gilded domes. This kind of a structure is frankly a

business office; it does not seek to disguise itself as a temple. No doubt, under certain circumstances, it is better for large and important banks to house themselves in an American version of a Renaissance church, but there is quite as much to be said from the strictly architectural point of view in favor of the edifice which meets a plain contemporary need in a plain contemporary fashion.

buildings which the firm has designed during the past few years. In none of these buildings is it embodied to better advantage than in the First National Bank Building of Chicago, and it is worth while to consider somewhat carefuully just what the formula is, and what are its merits. Its chief object, which is wholly praiseworthy, appears to be to subordinate all the sub-divisions of the



THE ROOM OF THE BOARD OF DIRECTORS.

Building of the First National Bank, Chicago, Ill. D. H. Burnham & Co., Architects.

Among all the contemporary American architects there is no firm which has had as much experience in the design of "sky-scrapers" as Messrs. D. H. Burnham & Co., of Chicago, and there is also no firm which has adopted in making such designs a more definite formula. This formula has not been reached in a day or in a year. It has gradually been worked out in the Fuller, the Railway Exchange, the Wanamaker, and the other

building and all its details to the dominant effect produced by the mass, the color and the salient vertical lines. There is no attempt to emphasize one part or episode of the building, as was done in so many of the earlier sky-scrapers, either by an elaborately ornamented entrance or by distinction of material, or by an attic plastered with bloated terra cotta detail. These methods of emphasis, which are or may be desirable in lower



THE PRIVATE OFFICE OF THE PRESIDENT.

Building of the First National Bank, Chicago, Ill. D. H. Burnham & Co., Architects.

buildings, have no meaning or place in a structure which is seventeen stories high, and which is visible only from narrow abutting streets. On such a building, seen under such conditions, it is only the essential facts and relations which count.

The essential facts about a building seventeen stories high and fronting two hundred feet or more on two different streets are its mass and its height. The mass is made effective by the warm solid color of the stone, the tone of which gives a dominant consistency to the effect of the whole pile. On the other hand, the height is emphasized by the grouping of the openings. The façades are divided into a series of bays of equal width which are carried up to the top of the building and which are merely repeated along the frontages on both streets. This treatment has been criticized as monotonous and mechanical; but it is also effective because, in the simplest manner and by the use of the merely necessary openings, the salient architectural fact of the height of the structure has been stamped upon the façade. Furthermore, this monotonous system of subdivision is functionally expressive of the fact that the floors of the building are actually divided into a succession of offices of approximately the same size and importance. It should be added that while the openings are used to bring out the vertical lines of the structure, all the projections on its front emphasize, on the contrary, what is in this case the almost equally important horizontal dimension. A strong course of stone separates the third from the fourth story, a weaker one the fourth from the fifth, and mere lines of stone divide all the intermediate stories one from another, while a sharp two-edged projection cuts the building between the fourteenth and fifteenth floors. The building is also surmounted by a cornice, but there has been no attempt to make the projections at or near the top of the building impressive by their mass and depth. Of course they throw shadows, but they are effective rather because of the sharp decisive lines which they make, than because of the saliency of the projection. The really effectual shadows at the top of the building have been obtained not by projections but by recesses. The reveals of the arches which terminate the window-openings have been made exceedingly deep; and the depth of these recesses not only reinforces the effect of the bays into which the front is divided, but really takes the place of a heavy cornice in crowning the building. By means of these shadows and by projections, both heavy and faint on the surface of the building, the monotonous succession of openings is tied together, and the two façades are properly and successfully aligned on the streets.

In spite of the fact that the officers of the First National Bank preferred to build a high rather than a low habitation, they have not been obliged to sacrifice either convenience of arrangement or sufficiency of light to the height of their building. The main office is one huge room, occupying the second floor of the building, including the area which above is thrown into the court. It is reached by a wide flight of stairs leading from the main entrance, and it is lighted not merely by the unusually high arched windows but by a skylight. Except on the darkest days, artificial illumination is unnecessary. The main banking office is handsomely and substantially, but by no means gaudily, finished; and this general description applies to such details as the furniture and to such rooms as those reserved for the president's office and the directors' meetings. Very little money has been spent upon mere show. The appearance of the place is business-like, prosperous, spacious, and above all substantial. That is practically all there is to be said about it, and that is enough. Such are the clothes which fit the business of a modern bank, and why ask for any other? From the aesthetic point of view, it is all somewhat dull; but from the practical point of view, it is appropriate and serviceable—which is of the first importance.

A. C. David.

The House of Mr. A. B. Pike

At Lake Forest, Ill.

It is with much satisfaction that the Architectural Record publishes herewith illustrations of the house of Mr. A. B. Pike, at Lake Forest, Ill., of which Mr. Arthur Heun is the designer. Mr. Heun is one of the younger architects practicing in Chicago whose work is best worth attention, both for the good taste and skill which it embodies, and for its relation to the most significant



THE HOUSE OF MR. A. B. PIKE.

Lake Forest, Ill. Arthur Heun, Architect.

Photos by Henry Fuermann.

tendencies in current Western domestic architecture. His work exhibits, as does that of a number of his associates, a respectful appreciation of the value of traditional forms mixed with a refreshing emancipation from the limitations of the mere copyist. It shows also, what is equally important, a desire for simplicity —an intention of reducing the elements of his design to the most fundamental and indispensable terms—a dislike of over-elaboration of design or superfluity of ornament. This seeking for simplicity may sometimes become too conscious and insistent; it may be obtained as much by omission as by the harmonious organization of a rich collection of subordinate members and pertinent detail. Nevertheless, it is on the whole, an admirable thing, because it is unquestionably true that the greatest contemporary needs of American architecture are simplification of method and consistency of purpose. Consequently the work of such designers as Mr. Heun is founded upon a correct estimate of the proper line of advance for the design of the middle western house of to-day, and Mr. Heun himself gives a most individual embodiment to this striving for simplicity and propriety.

The house of Mr. Pike, like so many of the better dwellings erected in and near the large middle western cities, is situated on only a few acres of land and is visible from the public road. The



THE HOUSE OF MR. A. B. PIKE.

Lake Forest, Ill.

Arthur Heun, Architect.



THE HOUSE OF MR. A. B. PIKE.

Arthur Heun, Architect.

Lake Forest, Ill.



LIVING-ROOM IN THE HOUSE OF MR. A. B. PIKE. Arthur Heun, Architect.

Lake Forest, Ill.



DINING-ROOM IN THE HOUSE OF MR. A. B. PIKE.

Lake Forest, Ill.

Arthur Heun, Architect.



HALL IN THE HOUSE OF MR. A. B. PIKE.

Lake Forest, Ill. Arthur Heun, Architect.

grounds of the house are cut off from the road by a high wooden fence of good design, and the entrance to the grounds is emphasized by a pair of plaster posts. From this entrance the road leads straight to the house, and when the trees which have recently been planted are fully grown, the passer-by will see from the gate through a vista of green foliage the entrance porch and the gable, with which the surface of the roof is broken. Apart from this entrance porch and its gable, the house is a plain, symmetrical building, with its height admirably proportioned to its length, with its large expanse of roof equally well proportioned to the walls it covers; and with the whole mass well scaled both to the surrounding foliage and to its distance from the gate. The effect is both charming and discreet, and it is a pity that the chief feature of this front does not add to the completeness of the impression. But, as seen from the entrance gate, the projection which is used as an entrance porch below and is carried out in a gable above, is unquestionably weak. Its mass does not count effectively in relation to the mass of the whole building. It is not emphatic enough for the dominant place which it occupies in the appearance of this facade. Either it should have amounted to more or to less, although it must be admitted that the task of making it either more or less would have required many other alterations in the rest of the design. This criticism applies, however, with very much diminished force, when the house is seen from a place away from the axis of the entrance and nearer to its walls. From a more intimate and oblique point of view, the projection, with its deep shadow becomes much more emphatic, and this fact naturally suggests the question whether a curved approach to the house would not under the circumstances have been more suitable.

The interior is no less attractive than the exterior. The white wood of the entrance hall, the vista which leads directly to the enclosed porch on the back and the fact that the living room and dining-room open off on the two sides of the hall—in all these respects the house suggests the colonial analogies; but it is as a matter of fact as little colonial on the inside as on the outside. The character of the stairway and the detail of the wood-work is not in the least colonial, while at the same time the effect is admirably fresh and discreet. So it is with the living room. In this apartment the design of the dark stained wood-work is indeed dominated by the pilasters, which run from the floor to the cornice, and these pilasters are suggestive of colonial models. As a matter of fact, however, the room belongs to no historical period, and is to be estimated solely as an attempt to make an appropriate and good-looking living-room, for a modern American family; and as such it is entirely successful. The room is carefully designed; but it is at the same time comfortable in appearance and charming in effect—adjectives which cannot be applied to all carefully designed rooms. The windows are managed with peculiar success and account as much as anything else for the pleasant and cheerful aspect of the room, while a good illustration of the scrupulous attention to detail on the part of the architect may be found in the sinking of the book-cases into the walls, an excellent device for keeping the book-shelves of a panelled room flat in their proper place. It is unfortunate that some of the furniture is too heavy for the character of the room, but there is less incongruity between the design of the room and its furnishings than is usually the case. The dining-room, which is panelled in white, shows a similar mixture of discretion and good feeling, and it helps to confirm an impression that the architect, Mr. Heun, has a peculiar talent for the design and decoration of domestic interiors. He has the right feeling and ideas; he has refinement; he has consistency; and he has even a certain style.

NOTES & COMMENTS

IS GOTHIC DEAD?

It is at least a great refreshment to read the enthusiastic articles of Mr. Ralph Adams Cram, in "The Brickbuilder" on "Ecclesiastical Architecture", even if one should find them less nutritious than palatable, or, contrariwise, less palatable than wholesome. The successful architectural practitioner is so apt to be a man who has discharged his mind of any architectural convictions which it may once have been capable of entertaining, as luxuries which a man who has a living to make by doing the acceptable and fashionable thing cannot afford, that a candid mind would prefer to see an architect wrong, since in honest wrongness there is the promise and potency of life, rather than to see him merely in a state of intellectual torpor, which is death. To be sure, Mr. Cram not only "believes what he knows", but he believes many things which it is difficult to believe that he knows, such as that English Gothic is "more Gothic" than the French Gothic which was, both historically and intellectually, according to the extra-insular modern consensus, its original. The Gothic of the French cathedrals is the attainment of "the system arising out of a principle", which one means by Gothic, when he takes care to define his terms. English Gothic may be called a picturesque degeneration of that system, arising, as the critical examiner of the Gothic remains in the two countries cannot help knowing, in considerable part from a misunderstanding of the original. On the other hand, one may maintain that the "norm" of Gothic is not to be found in France at all, but in the cathedral of Cologne, in which the author carried the "system" to its logical conclusions as it was carried in no French building, and where, it may be added by the disparagers of the German building, the pure logical result was undisturbed by any personal artistic equation.

But to do brutal justice to what Mr. Cram says would be to run the risk of doing injustice to what he means. Following, one supposes, a recent British historian of Gothic, he traces the differences between French and English, or "Continental" and "insular" Gothic, to the fact that the monastic "plant" rather than the urban church or cathedral was the starting point of English Gothic. It is in the parish church, of which Mr. Cram in his illustration, presents some charming examples, rather than in the cathedral that, one cannot quite say the power and glory, but one can quite say that the charm of the English style chiefly resides. Poor Mr. Fergusson made a grievous error when he undertook to set up little Lichfield as an architectural rival and even superior of monumental Cologne. But if he had shown us the congruity of little Lichfield with the sweet pastoral English landscape which frames it, and appealed to that congruity, he would have stood on firmer ground. The picturesque degeneration is indeed so charming that many there be, in addition to Mr. Cram, who prefer those late stages of it in which it departed furthest from any logical or rational definition of Gothic. There is Anthony Trollope, for example, who likes the Tudor better than any of its preceding modes. There is Edward A. Freeman, who wrote his "History of Architecture" in a Puseyite and Puginesque state of mind resembling Mr. Cram's own, and declared his conviction that "Perpendicular was decidedly the best" of the English Gothic fashions, although he long afterwards deprecated the whole book as colored by "a way of thinking of which I have long taken leave."

Mr. Cram, it will be evident to the readers of his papers, mixes up his architecture with his ecclesiology and both with his "sociology" so that it is sometimes hard to tell whether he is talking art, politics or religion. He seems to accept the Puginesque view that the English Reformation was partly blasphemy and partly blunder, and, like Charles Reade's character, he is strongly in favor of making John Bull little again into John Calf, the joke being Douglas Jerrold's. This is rather a pity, because the Ritualists are all, by the force of the term, Gothicists already, and it is necessary, in order to bring back Gothic as a vernacular style, to make some conversions for it among the Gentiles.

There are "no votes" to be got by simply representing it as the expression of mediaeval notions of life, though it undoubtedly was, and recommending it upon the ground that those notions were far superior to modern notions. The more one sympathizes with Mr. Cram's ends, the more one is bound to deprecate his means.

According to Mr. Cram, English Gothic is more Gothic than French, because it is more personal. Undoubtedly Gothic is more personal than is classic, as all romantic art is more personal than is classic art, of which one may almost say the impersonality is the distinction. So also the builder of a parish church has more scope for the display of individuality, from the very fact that he is interested only in the picturesque aspects of his style, than any one of the series of builders who labored for the establishment of a "system arising out of a principle" and whose labors culminated in the development of the groined and buttressed vault. It is quite fair to say of Cologne, in some ways that culmination, that it lacks personality. But in Gothic are many mansions, and it is to exalt not merely individuality but eccentricity to find that Amiens and Rheims and Paris and Chartres lack personality.

GOTHIC REVIVALS

But if Gothic as we historically know it were the only Gothic, if it were merely expressive of, and merely capable of expressing mediaeval ideas and mediaeval modes of building, its interest would be merely historical, and its place in an historical museum, or, if Mr. Cram prefers, in a reliquary. What makes Gothic viable is the fact that, although we no longer build groined vaults, Gothic vaulting shows us principles which may be applied to any possible construction, principles which belong not only to mediaeval ecclesiastical architecture, but to all architecture. The attempt to revive it, in the middle of the last century, in England, in this country as an architectural province of England, and in South Germany (in France the Beaux Arts was too much for it and it survives only in the excellent literature and the bad architecture of Viollet le Duc)—this attempt was a failure, in spite of the labors of many men of talent and enthusiasm. It was a failure because upon the whole, in spite of some brilliant exceptions, the revivalists did not proceed from their starting point, but marked time at it by repeating the forms of historical Gothic. With this method, the difference between Gothic and classic becomes merely a question of taste, "non disputandum." Mr. Cram knows this as well as we do, but his rhapsody upon the old Gothic, though entirely justified, may blind some of his readers to the fact that he knows it. The clear proof that he does is found in his declaration that among living American architects, Louis Sullivan is "essentially the most Gothic of all", though to the architect who regards his business as form-mongery, and an historical style merely as a storage warehouse of forms, there is nothing at all Gothic about Mr. Sullivan's work.

Meanwhile, as Richardson used to say, "the way for us architects to promote good architecture is to do it, the best we can." Not that Mr. Cram's literary appeals in behalf of the style of his love are to be disparaged. It would be ungrateful to say so. And, fortunately for Mr. Cram, and, to my thinking for the rest of us, his firm has in the new West Point, perhaps the largest opportunity any Gothic revivalist has had in this country, certainly the largest since what I hope I may call, without disrespect to anybody in particular, the Beaux Arts "ring" got control of building in this country and undertook to impose Ludovican Paris as the accurate and adequate architectural expression of American life at the beginning of the Twentieth century. The practical summary of "Gothic principles" is simply "Hoc age"—do what you are doing, and do your best to express what you are doing in historical forms if you can do it without contradicting the contemporary fact, but not otherwise. There are Goths who are doing that; there are Beaux Artists who are doing that. Whoever is doing that is practicing architecture and not merely keeping a form-store. Every one of them is doing his share to make modern architecture such a reflection and expression of modern life as mediaeval architecture was of mediaeval life, and to bring about in architecture such "correspondence with life" as has not been since the sixteenth century. "Men bring not back the mastodon, nor we those times." The point of departure is of less importance than the point of arrival. But to those who believe, as this reviewer believes, as fully as Mr. Cram can believe, that Gothic architecture is a more rational and a more promising point of departure than classic, of which the practitioners are destined, by force of regarding their models as ultimate, to mark time forever, and never to advance, Mr. Cram's articles, to refer to our beginning, are a great refreshment. M. S.

THE PASSING OF THE SPIRE

The adoption of the domed Byzantine type for the new Madison Square Church is in sharp contrast with the reported remark of the rector of St. Thomas' that he will not hear of the rebuilding of the lamented edifice of that name in any other style than Gothic. The tower and lantern of the burned church remain, and form a picturesque object well worthy of preservation. But they are so dwarfed and overslaughed by the huge and towering flat-roofed edifices which have come to surround the site as to inspire something of the pity with which the passer contemplates the spire of Trinity which he can now see only from its own churchyard, and remembers that it is less than a generation since it was the "landmark" of lower Manhattan. Indeed, the modester height of the tower of St. Thomas is a distinct advantage, as taking it "hors concours." It does not enter the competition with "Mammon" in which the earlier and costlier and taller erection of its architect has been so conspicuously worsted.

Even in commercial architecture, it has been noted, conditions now concur to make a low building a "swell" building, as indicating that the owner can afford to put up a building for his own requirements. Similarly, the very humbleness of a church building may come to indicate a proud humility, and a refusal to compete with Mammon. A church is, primarily and essentially a room, and the highest room that can decently be reared for the purpose of public worship will not be very impressive by its altitude among the modern skyscrapers. The cathedral in Fifth avenue rather exceeds, in the interior height of its nave, the average of English examples. If half as much height again were added to it to bring it into competition, in this respect, with the great French cathedrals, not much would be added to its impressiveness with reference to its actual, and still less with reference to its prospective surroundings. Nobody would recommend a reproduction of Cologne for Manhattan, at least for any part of Manhattan where the surroundings cannot be controlled and restricted by the cathedral.

There is, to be sure, another solution, that which has been reached, with such interesting results, though on a comparatively modest scale, in the new Broadway Tabernacle. The adjuncts and "offices" of a cathedral, or even of a complete parochial "plant," were in mediaeval times grouped around the church, to the absorption of a corresponding area of land. In cities, where land is very costly, and, indeed, the chief element of cost, these adjuncts can be superimposed so as to give to the crowning feature of the edifice an altitude and an importance which will enable the church to hold its own in a competition of moderate skyscrapers, of skyscrapers of the height to which, according to some, all skyscrapers should be limited by law. In this case, however, the crowning feature will not become the tower or the spire we mean, when speaking of that finial in historical church architecture. It will rather spread, as in the instance we have just been citing, into the "cimborio" of the Spanish cathedrals, as reproduced, for example, in Trinity Church, Boston. In the new Tabernacle, in which the bulk of the central feature is comparatively so much greater than in Trinity, and the altitude also, Mr. Barney has shown that the vertical grouping may become picturesque and effective without ceasing to be ecclesiastical in expression, and we may be sure that Richardson would have rejoiced in a problem which not only permitted but compelled him to increase the importance of his central tower.

When the church, as in the case of the Madison Square Church, is merely or predominantly a preaching place, this solution is not admissible. A building is indicated which shall be clearly taken out of the secular competition by being kept down, and shall make its effect by the mass and scale which the skeleton building of many low and equal stories necessarily renounces. In any case, the slim and tapering spire is no longer permissible in a city church. It is too plainly foredoomed to become a pitiable or a ludicrous object, and no considerate architect will any longer recommend it.

M. S.

A NOTABLE YEAR

The great news of 1905, in the story of urban development, has belonged to the year's last quarter. The cities are London and San Francisco—significant of the wide sweep of the betterment movement; and the news is such as of itself to make the whole year notable. As might be expected, the tidings from San Francisco are of promise: the announcement of D. H. Burnham's long studied and ambitious scheme, the city's "aesthetic character", as the Merchants' Association calls it; while the tidings from ancient, ponderous London are of achievement; the opening of Kingsway and Aldwych, the two great thoroughfares that constitute the main part of "the Holborn to the Strand Improvement."

HOLBORN TO THE STRAND IMPROVEMENT

It was on October 18 that King Edward opened the new London streets. For nearly seventy years the urgency of such an improvement has been so plain that it has been advocated. Every American who has visited the great city knows well the streets through which it has been thrust, and recalling the tortuous ride on the green bus through some of the area's narrow ways, en route from Holborn to Charing Cross, has no need to be told how the increasing congestion of traffic could at last overcome the fears of enormous expense. In 1889 the County Council superseded the old Metropolitan Board of Works, and took up this matter. It was ten years later before the work could be begun. But once it was begun, it was prosecuted so well that although Parliament gave until August, 1906, for its completion, it has been opened in October, 1905, and the gross cost appears to be a million dollars under the estimate.

COST OF THE NEW THOROUGHFARES

Kingsway, starting from Theobald's road, proceeds south along the line of what was formerly Southampton Row. It is here 80 feet broad, which is wide for London—ten feet more than Queen Victoria street, and twenty feet wider than Shaftesbury avenue. Crossing Holborn, it absorbs what was once Little Queen Street, and, now broadened to a hundred feet, proceeds in a straight line to the site of the old Olympic theatre. Here it divides, forming on one side the crescent of Aldwych, which sweeps in a bold curve to cut the Strand at St. Clement Dane's church. At that conspicuous intersection the Gladstone memorial is to stand. The other, or western, horn enters the Strand at Wellington Street, about opposite Waterloo bridge. The length of the thoroughfare is three-quarters of a mile, and though the total cost of the complete scheme, without recoupments, is £6,120,380, the recoupments reduce this to £1,757,180, and it is figured that ground rent, etc., will entirely take care of the interest (£150,000 per annum) on the money borrowed for the improvement. If this is so, the vast work is going to impose no financial burden whatever upon the taxpayers.

ARCHITECTURAL DEVELOPMENTS

The architectural features of the scheme have had, as would be expected, no little thought. Eight architects were chosen to submit elevation designs for the buildings in the new crescent road and in the widened portion of the Strand. Norman Shaw accepted an invitation to advise the Council's architect, and further assistance was given by the President and Council of the Royal Institute of British Architects. Already some buildings have risen on the new street, and others will now follow rapidly. The fact is, summer visitors to England have returned full of stories of a changing London. Not only is there this great improvement to arrest attention, but the Strand has some new structures that are quite Parisian, and the great piles which the government has been raising in Whitehall and Parliament Street, for the war office and Board of Trade, show that Washington is not the only capital daring to dream of a new official magnificence. Even in Regent Street the familiar, old-fashioned, crescent structure of the days of George the Fourth is giving place in part to a new, American-like hotel.

SAN FRANCISCO'S AESTHETIC CHARTER

As to San Francisco's "aesthetic charter," the Burnham plan suggests improvements that it is thought will cost $50,000,000 and take some fifty years to execute. It will seem to some that this was rather overshooting the mark, and that there would have been a gain in presenting a scheme more financially reasonable and immediately practicable. However, San Francisco is strong, confident, ambitious, and contains many men of wealth; and it may be supposed that Mr. Burnham knew the conditions and aspirations better than we of the East. The chamber of the Board of Supervisors was thronged with interested spectators when the plan was presented, and the record is that only one voice was raised in protest. Its owner was promptly removed from the room by the sergeant-at-arms. Mr. Burnham himself was not present at the presentation of the plans, but a letter was read from him in which he gave great credit to his chief of staff, Edward H. Bennett, who had charge of most of the actual designing. The day closed with the inevitable banquet, designed, as was said, to mark the

point at which Mr. Burnham's labors ceased and the city's began. Although the expert's services were donated, the expenditures for the work of making and drafting the plans have proved very heavy.

PAINTING AND ILLUSTRATION

The voluntary renunciation by Mr. Charles Dana Gibson of an income earned by illustrating and stated to be $65,000 a year for the purpose of becoming a painter in oils has provoked a good deal of admiring comment in the newspapers; but the most extraordinary thing about the incident is not that Mr. Gibson has renounced $65,000 a year, but that he ever succeeded in earning it. We may safely assert that the number of "artists" who have, since the beginning of "art," earned for several years as much as $65,000 a year may be counted on the fingers of one hand. Artists have as a rule been an impecunious lot; and it is only recently that American artists were reproached in a monthly publication for "eking out a precarious existence." Moreover, this is as it should be. The artist has many compensations for his work which are denied to the man of affairs; and in the long run there can be no doubt that art could scarcely become highly lucrative without for that reason becoming impoverished. What the artist needs is not fat fees, but intelligent sympathy, and the prosperous American democracy has been in the habit of rewarding him as little with the former as with the latter. But Mr. Gibson's act of renunciation emphasizes the fact that there is one branch of American art which is highly lucrative; and it may be profitable to consider for a moment why it is that the illustrators are upon the average so much better paid than other American artists.

The fact that they are better paid is unquestionable. Mr. Gibson was exceptional in the amount of money which he was able to earn; but one could easily name a dozen other illustrators whose work returns them anywhere from $20,000 to $50,000 a year; and there are many more who make an extremely good living out of their drawings. On the whole, they undoubtedly find their work not only very much more profitable than do the same number of painters, of similar standing, but also very much more profitable than do the English, French and German illustrators. Their opportunities are more interesting and abundant; their rate of pay higher; and the general use of colored printing has enabled them to employ much more varied and interesting technical processes. Many of them are employed under running contracts, which free them from all anxiety as to the amount and the nature of their work, and which assures them a substantial income without costing them more than a fraction of their time. Altogether their situation from every material point of view is extremely satisfactory, and instead of "eking out a precarious existence" they are by way of building country houses and buying motor-cars.

There is no need of seeking far for the cause of this prosperity. It is, of course, the immediate result of the prosperity of American periodical publications. There are two American weekly journals and a score or more monthlies, whose circulation runs into the several hundred thousand and whose advertising rates are proportional to their circulation. These publications must buy what is believed to be the most popular available material, and the competition among them for such material is keen. They are willing to pay high prices for it, and can afford to do so. It is, furthermore, even more important for them to secure popular and effective pictures than it is interesting reading matter, because it is the pictures more than anything else which advertise the publications. The consequence is that many illustrators can obtain more and readier money merely for the right to publish a drawing than a landscape painter can for an oil canvas, which may be much costlier at once in skill, in time and in personal stress. In current illustration we have a form of art, which, whether bad or good, is undeniably and remarkably saleable, and it inevitably receives a reward proportioned to its popularity.

Be it added that American illustration is not carried into popularity on the back of popular authors. Its effectiveness is, as it should be, entirely independent of the stories with which it sometimes shares the pages of a magazine. Indeed, with a few exceptions, the most successful American illustrators rarely attempt the ungrateful and unnecessary task of embodying the incidents or the characters of a story in a series of pictures; or if they do the value of the picture is entirely independent of its value as an illustration of a certain text. What the American illustrators illustrate is their own vision of things and people past and present, and the most successful are those whose vision is most definite and most individual. Mr. Howard Pyle, for instance, continues to illustrate stories of the several highly col-

ored historical periods; but in his case it is essentially the letter press which explains the pictures, not the pictures, which makes the letter press vivid. The pictures that is, are bound to dominate any text which accompanies them. Or again in the case of Mr. Gibson himself there is no question of illustrating anything but his own observation of contemporary American types and social situations—conceived sometimes humorously and sometimes sentimentally. The same statement is substantially true of such illustrators as Mr. Frederic Remington and Mr. Maxfield Parish. The former has abandoned entirely the illustrations of stories and confines himself to making pictures of historical or imaginary incidents, representative of different phases of Western life, while the latter's pictures have embodied with absolute consistency a fantastic world of his own imagining, which bears only a remote and casual relation to the world of story books. Even such utterly inferior work as that of Mr. Howard Chandler Christie has obtained its vogue from stereotyping in the vulgar and commonplace but very definite way the shop girls' fashionable heroes and heroines. In all these and in many other cases the illustrator is as far as possible from subordinating himself to the author. He is the independent creator of a certain kind of popular art; and it is no wonder that, as in the case of Mr. Edwin Abbey and now Mr. C. D. Gibson, they frequently break away altogether from periodical publication.

It is none the less a very significant fact that the most popular and lucrative form of American art is that of illustration, because the very essence of illustration is of course not its beauty, but its expressiveness. Whatever else it does, it must tell some kind of a story, and this is more rather than less true of illustrations whose value and effectiveness is independent of any lengthy text, They must tell their own story; and they must tell it in a language that people understand. Now the picture-language, which many thousands of people understand is not of course, the proper, the essential language of painting—a language which is constituted at bottom by certain abstract visual material arranged according to certain abstract and technical values. The picture language which they understand is constituted by familiar human figures, types and scenery, arranged generally with a view to some moral or dramtic effect. The more familiar these types are the more popular the illustration. In the eyes of by far the larger part of the American public the favorite figures of American pictorial art are such racy heroes of comic misadventure as Buster Brown, Foxy Grandpa and Happy Hooligan. But, of course, illustration at this level is not art at all, except in the same sense that good reporting is literature. On a somewhat higher level of the art of illustration, the familiarity of the types depected is partly the creation of the artist, such as the Gibson man and the Gibson girl; and on this level also the drawings begin to have certain technical merits of line and composition. Finally there is a higher level still, in which, through the medium of three-colored printing, the illustrator becomes still nearer the painter—becomes in fact the decorator of a page instead of a wall and makes his popular effect chiefly by force of repeating his own imaginative or representative vision of nature and human life. On this level there are many illustrators who might just as well be painters; just as there are many painters who might better be illustrators. Moreover, essential as it is for the integrity of American painting to keep its purposes and methods separate from that of illustration, a free movement from the ranks of the illustrators to the ranks of the painters is likely to be a good rather than a bad thing for American painting, because the illustrators may help to advertise American painting into great popularity; and in a democracy nothing seems to succeed which is not, in one way or another, well advertised.

H. D. C.



HALLWAY OF A NEW YORK RESIDENCE. Brite & Bacon, Architects.



DETAIL OF CARNEGIE LIBRARY, FRANKFORD, PA.

Terra Cotta by Conkling-Armstrong Terra Cotta Co. Watson & Hackel, Architects.

The Proper Use of Terra Cotta

III.

In the first article of this series, we gave a short history of the use of terra cotta in this country, and pointed out how during the life of one generation it had developed from a neglected material into a material which was being more widely and more variously used than ever before in the history of building construction. In the second article we pushed the argument further by giving some of the salient reasons for its increasing popularity. Terra cotta has certain manifest and incontestable advantages over the other leading materials, which are employed for ornamental and structural purposes; and these advantages have been the direct cause of its great success. In the beginning it had everything against it—the force of custom, imperfect technical processes, the active opposition of the people interested in other materials, and certain disappointments which resulted from its misuse. But it has triumphed over all these adverse conditions; and at the present time every succeeding year finds its popularity wider and its standing more certain.

In this third article we propose to consider somewhat more in detail the proper use of terra cotta as a material—a subject which is obviously of the utmost importance to everyone who is interested in terra cotta either from the commercial or the architectural point of view; and it is a subject which is intimately related to that of our last article upon its advantages as a material. The proper use of terra cotta consists precisely in using it in such a way that its advantages are most completely developed; and the increase of its popularity depends in the long run absolutely upon the increasing propriety of its use. When employed in just the right way it need fear neither competition nor substitution, but when an architect or builder employs it either clumsily or pervertedly, he is doing the material as a material a real harm. He is either passing counterfeit money, or what is almost as bad, he is passing money which is easily counterfeited; and a counterfeit can never get into the country's architectural Treasury.

That terra cotta should have been frequently misused in the past and is still to a certain extent misused is the inevitable result of the way in which the material was introduced, and of the contemporary condition of American architecture and building. During the other times and in the other places where it was largely and successfully used there was practically no competition between

it and other materials, and there was consequently no temptation to employ it in a perverted manner. The builders of Assyria and to a smaller extent those of Lombardy were obliged to use burnt clay, because stone was available only at a much heavier expense; and under such circumstances they did not have any temptation to use terra cotta as a sham material. But in our country we had been accustomed from the start to inferior methods of construction and to the employment of materials without any reference to their best qualities. We had used wood both as a structural and decorative material merely in imitation of stone; and we had frequently used stone, when brick would have served the purpose very much more efficiently. The habit of American builders was, consequently, at that time almost entirely to disregard the nature of the material in obtaining a desired effect; and as the desired effect was generally that of a dull and mono-chromatic substantiality, it followed that wood, plaster and sometimes even brick were often made to look as much like stone as pos-



MORRIS HIGH SCHOOL.

Terra Cotta by New York Architectural Terra Cotta Co. C. B. J. Snyder, Architect.

sible. It was inevitable consequently that when terra cotta was first introduced, it also would have to win its way into favor by pretending to be a cheap stone; and up to the present day architects not infrequently demand a similar pretence of the manufacturers of terra cotta. But owing to the increased use and cheapness of artificial stones this particular mis-employment of terra cotta cannot last very much longer. There are and will be many ways of misusing terra cotta, but the attempt to make it look like stone will not continue to be one of them.

The well-trained architects have been the great reformers of American building methods and standards, and the better use of terra cotta can be directly traced to their influence. In the beginning Mr. George B. Post accomplished more than any other designer to give the material an independent standing and consequently a distinctive use, and it is significant that he achieved this result largely by having it manufactured in a new and popular color. Previous to 1877 practically all American architectural terra cotta was the color of stone, but when Mr. Post insisted on obtaining for a residence in 36th st, for the building of the Long Island Historical Society, and later in the Produce Exchange a burnt clay material of a peculiar warm shade of red, he at once divorced the material from stone and started it upon its independent career. The new color straightway became so popular that the color was named after the material, of which it was made. During this stage in its American career terra cotta was employed almost exclusively in conjunction



42 BROADWAY.

Terra Cotta by Excelsior Terra Cotta Co. Henry Ives Cobb, Architect.



TIMES BUILDING, NEW YORK.

Terra Cotta by Perth Amboy Terra Cotta Co. C. L. W. Eidlitz, Architect.

with brick for the ornamental parts and members of a brick building; and while this was an unnecessarily restricted employment of the material it was a thoroughly wholesome and desirable employment. It is one of the greatest advantages of terra cotta that it is the most economical material which can be used for ornamental purposes, and it naturally came into great favor with the architects who like to ornament their buildings profusely. It was, moreover, during this early and limited use of terra cotta that some of the best ornament ever reproduced in burnt clay in this country was applied to certain buildings in New York. In this connection some of the detail of the building of the Long Island Historical Society, designed by Olin Warner, is particularly worth attention, while another of the early buildings which owed much of its charm to the successful application of terra cotta ornament was the Casino Theatre at Broadway and 39th st. The Moorish character of the design of this building tempted the architects to use elaborate and delicate ornamental patterns, which could, perhaps, have been more artfully worked in stone, but the designs themselves are beautiful, effective and appropriate, and demonstrated that extremely elaborate decorative patterns could be carried out in terra cotta at a comparatively small cost.

There is not very much to be said about the proper use of terra cotta for ornamental purposes. In this as in other respects it is frequently employed very clumsily, but its clumsy employment is as a rule not due to a perverted employment of the material as a material, so much as to the inappropriate use of the ornament as an ornament. Thus the application of any ornament, large in scale, to the upper stories of a twenty-story building is a mistake, because no ornament, however large in scale it may be,



CROQUET SHELTER, PROSPECT PARK, BROOKLYN, N. Y.

McKim, Mead & White, Architects.

Built of Dull-enamel Terra Cotta furnished by The Atlantic Terra Cotta Co.

is effective at such an enormous height from the ground, and it is scarcely worth while to spend thousands of dollars for decorations which can only be enjoyed by the few inhabitants of the top stories of neighboring sky-scrapers. But this is a mistake in architectural design rather than in the use of terra cotta. It is enough to say in general that terra cotta ornament should not be used when precision, delicacy and refinement of line are required. On the other hand terra cotta is just as effective as carved stone, when the ornament is seen from a greater distance, and when the architect intends that its effect shall be merged in the general effect of the building. Under such circumstances it is, as we have said, just as effective, and it is very much more economical; and inasmuch as precision, delicacy and refinement of line are rarely necessary in contemporary American ornamentation, terra cotta could be employed on many buildings on which at present a great deal of money is unnecessarily spent upon carving.

There is, however, a tendency in the architecture of to-day to decrease and to simplify the amount of ornament on buildings; and this tendency should work rather in favor of terra cotta than against it. For when buildings are not ornamented in detail, they must make their effect, apart from their mass, their proportions, and their salient lines, by the texture and color of their materials; and it is in the possibilities it affords of an excellent texture and color that some of the greatest and most peculiar merits of terra cotta consists. This fact was recognized very early, although it is only recently that improved technical processes have enabled manufacturers to take full advantage of it. During the eighties, when the Romanesque style was much more prevalent than it is at present, it was felt by certain architects that the usual terra cotta with its smooth surface was not adapted to the massive and sometimes rugged character of Romanesque designs. Mr. C. L. W. Eidlitz in particular wanted a rougher surface, and he devised a method whereby terra cotta with combed or crinkled



DETAIL BY NEW JERSEY TERRA COTTA CO.

surfaces could be manufactured. Here again we have a use for the material which was admirable and progressive just because it was distinctive. Such a roughening of the surface could not have been accomplished in any material except one like terra cotta, which was plastic, and the excellent results which were accomplished in this way may still be seen upon the Art and Library Building in Buffalo, upon the Telephone Building in Cortlandt st, New York City, and upon the Racquet club house on West 43d st, New York City.

This peculiar development in the surface treatment of terra cotta has not proved to be of much permanent importance, because the need of it disappeared when Romanesque buildings became less frequent; but since that period great strides have been made in giving a more varied texture and tone to architectural terra cotta. Little by little it has become appreciated that one of the greatest merits of terra cotta is its adaptability to varying requirements of this kind, and it is apparent that the great future for the material is connected with this quality. It will continue to be used, of course, for figured ornament, but it will be used still more largely to carry out that part of the decorative treatment of tall buildings, which depends upon maintaining a uniform solid impression of surface, tone and color.

It has been constantly repeated in these articles that the fireproofed sky-scraper affords the greatest of all opportunities for growth in the use of terra cotta, and this is true, not only because terra cotta is an absolutely fire-resisting material, but because of its adaptability to the aesthetic designs of sky-scraper design. The better architects are coming more and more to depend for the effect of such a design, not upon ornamental detail, not upon contrasts of material, which break the façade up into sections, and not, in short, upon any treatment of such a building which impairs the over-



ST. JOSEPH'S NORMAL COLLEGE, POCANTICO HILLS, N. Y.

Terra Cotta by The South Amboy Terra Cotta Co. John E. Kirby, Architect.

powering effect of its mass; and in intensifying such an effect terra cotta is then an efficient and indispensable ally. It is very much more than a happy chance that there was a coincident improvement between the process of manufacturing terra cotta and the growth in the use of steel frame for tall buildings, because the material is peculiarly adapted to the method of construction. Indeed it is not too much to say that in case terra cotta had not been made in this country at the time the steel frame came into universal use for tall buildings, that method of construction would have imperatively demanded its manufacture. The sky-scraper must have a coating of fireproof material which is comparatively light in weight, which can be economically handled in comparatively small pieces, and the color and surface of which can be for the most part controlled. Terra cotta satisfies all these requirements as no other material, either artificial or natural, satisfies them; and consequently its successful use in tall buildings, while not by any means the only example of its peculiarly appropriate employment, is probably the best example. Constructively it precisely fulfills its function, and it can be made to do an equally good aesthetic service. All the most successful examples of sky-scraper design recently erected are buildings in which a flat, simple, screen-like and monotonous treatment has been adopted and carried out in terra cotta, the aesthetic value of which consisted chiefly in the manner in which its texture, color and ornamentation assisted in bringing out the masses of the big buildings and their comparative lightness. In sky-scrapers such as the Times and Wanamaker buildings in New York or in the Railway Exchange Building in Chicago terra cotta has been applied in a way that is extremely idiomatic and highly appropriate.

There is only one additional way in which the use of terra cotta can become still more appropriate and still more idiomatic, and that is through the use of positive instead of neutral colors. One can imagine, perhaps, that some kind of cement composition will eventually be made which may compete with terra cotta as an appropriate coating for a sky-scraper; but no such competitor can arise for the use of glazed and colored terra cotta. Every good quality of the material reaches its highest ex-



TERRA COTTA DETAIL BY NORTHWESTERN TERRA COTTA CO.

pression in this final and most difficult of all achievements in its manufacture, and the last article of this series will be devoted to an account of what has already been accomplished in this respect, and what a tremendous future is opened up thereby.

H. D. Croly.



BOARD OF EDUCATION HALL.

59th Street and Park Avenue, New York. N. Le Brun & Son, Architects.

Terra Cotta by Standard Terra Cotta Works.

"SWEET'S" "The Book of the Catalogue"

A Department Devoted to Items of Interest Regarding "Sweet's Indexed Catalogue of Building Construction"

"Sweet's Index" is now on the press, and will shortly be distributed

THE final arrangements are in hand for the distribution of "Sweet's Index." We shall be glad to receive from any of our readers the names and addresses of architects, builders and others to whom "Sweet's Index" should be distributed. As with any other costly dictionary or encyclopaedia, "Sweet's Index" has entailed in its production the expenditure of a large sum of money. It is, therefore, imperative that any list of names and addresses submitted to the publishers should be strictly those of individuals who are actively engaged in the making of specifications for building operations. It would perhaps be well if those who submit lists to us would kindly add to the list itself a few facts as to the extent of the operations of the individuals named. The necessity for this request will be understood when it is stated that if "Sweet's Index" were a work sold by the ordinary method of the book trade, its price would be normally somewhere between twenty and twenty-five dollars a copy

¶ All lists should be addressed to the publishers,
THE ARCHITECTURAL RECORD CO.
14-16 VESEY STREET, NEW YORK CITY
or, 511 MONADNOCK BUILDING, CHICAGO, ILLINOIS

VOL. XIX. No. 2. FEBRUARY, 1906. WHOLE No. 89.

THE ARCHITECTURAL RECORD

CONTENTS

	PAGE
THE NEW NEW YORK HOUSE—ILLUSTRATED	83
MONTGOMERY SCHUYLER	
SOME HOUSES BY MR. HOWARD SHAW—ILLUSTRATED	105
A. C. DAVID	
PARISIAN DOORWAYS OF THE EIGHTEENTH CENTURY—ILLUSTRATED	123
RUSSELL STURGIS	
AN ARCHITECTURAL OASIS—ILLUSTRATED	135
THE PERIOD OF DAIKAN—ILLUSTRATED	145
ZAIDA BEN-YUSUF	
NOTES AND COMMENTS—ILLUSTRATED	151
TECHNICAL DEPARTMENT—ILLUSTRATED	163

C. W. SWEET, Publisher R. W. REINHOLD, Business Mgr.
H. W. DESMOND, Editor H. D. CROLY, Associate Editor

Subscription (Yearly), $3.00 **Published Monthly**

TWENTY-FIVE CENTS

THE ARCHITECTURAL RECORD CO.
NEW YORK

TWENTY-FIVE CENTS

OFFICE OF PUBLICATION: Nos. 14 and 16 VESEY STREET, NEW YORK CITY.
WESTERN OFFICE: 511 MONADNOCK BLDG., CHICAGO, ILL.



THE PUBLIC SQUARE IN NAUGATUCK, CONN.

On the left is the Congregational Church, and in the corner the Public Library; both designed by McKim, Mead and White.
Photo by A. Patzig.

The
Architectural Record

VOL. XIX. FEBRUARY, 1906. No. 2.

The New New York House.

As to the residential quarter of New York, the present generation of New Yorkers are in the way of reversing as to their city the boast of the Roman Emperor as to his: *urbem latericiam invenit, marmoream reliquit.* For they found their dwellings not indeed "marmoream" but ostensibly "lapideam," faced, to wit, with four inches of brownstone veneering, and they are likely to leave fronts, as well as sides and backs, of honest and avowed brickwork. For that matter, some man may say, Augustus's marble, as well as the Manhattanese brownstone, was only a "front." It was a facing, but it was not a veneer, and by so much was it already more respectable. It was a facing of marble, as Viollet le Duc has shown us with regard to the temple of Vesta, upon a backing not of brickwork but of the common stone of the country, to which not only was every ashlar tied with an iron dowel, but through which, every third course, ran a thin marble bond stone, making the wall virtually homogeneous; and this construction was as unmistakably expressed on the surface as the like construction is expressed in the case of a well-built brick wall, with its alternation of headers and stretchers. The brownstone front was simply a four inch veneer of that material, applied to a brick backing in a manner not only unexplained but inscrutable from the exterior. So far from any visible connection with the wall was its veneer that the purpose of the sophisticated mason became to get his veneer in the largest pieces, and to hide his joints so far as he could, by concealing them under mouldings, or by reducing them to the minimum, so as to feign that the veneer was a single sheet, as it had been a coat of stucco. This was the perverted notion of a "neat job" at the height of the brownstone period. It reacted upon brickwork, so that not only was the "pressed brick," in which were sought absolute uniformity of color and the utmost smoothness so as to remove all sense of texture, the only permissible material for such facing as was not of brownstone, but again the merit of a joint was held to consist in its invisibility, and bonding, or any evidence of structure in brickwork meant to show was as carefully eschewed as if it had been an indecent exposure.

Plainly enough, this was not, nor it could not come to good. But it was for more than a generation the regulation place of abode of the best-to-do Manhattanese. The regulation was Procrustean. In the middle sixties, the number of such Manhattanese whose houses had been built for them could almost be counted on the fingers of one hand. Practically, everybody lived in "an habitation enforced." Everybody, whether he bought his house or rented it, lived in a house built for somebody else, or rather for nobody else, but for "the average man," and there is no such person, the average man being a mere statistical abstraction. There was, to be sure, an average of income enjoyed by the class for which the brownstone house front was built and crowned with its umbrageous and out-

Copyright, 1906, by "The Architectural Record Company." All rights reserved.
Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879.

rageous cornice of sheet metal painted and perhaps sanded to look like the veneer, which, to the discomfiture of the speculative builder, and the joy of the surly moralist, it never succeeded in doing. But of allowance for individual tastes and habits there was none at all. Sometimes, when a man had bought one of these Procrustean couches, he would take the liberty of modifying it rather than himself by an extension to the rear, picture gallery, library, music-room or what not. By looking out of the back windows of a New York block you might sometimes get a notion that Manhattan was populated by individuals differing among themselves in manners and customs. But the monotonous rows of high stoop brown stone fronts were an express negation of that notion, denying individuality and sternly repressing variety among their inmates. Charles Dickens noted the uniformity, in his whimsical way, on his last visit to New York in 1868, by saying that there were three hundred boarding houses in West Fourteenth Street exactly alike, with three hundred young men exactly alike sleeping in three hundred hall bedrooms exactly alike, with three hundred dress suits exactly alike lying on as many chairs exactly alike beside the beds, "in case an alarm of opera should break out during the night." London does not strike the stranger as a nurse of variety, at least in house-building, and the monotony must have been extreme which could thus impress a Londoner.

It was the development of the West Side which struck the first blow at the tyranny of the brownstone front. The immigrants to the new quarter insisted on the confession in the house fronts that they were individuals, and that their houses were their own. New liberty, in architecture as in politics, means license. And while a minority of the new houses were done by architects, and showed discretion and restraint in their emancipation, the great majority, done by the speculative builder's draughtsman according to the speculative builder's "ideas," were so licentious as to furnish plausible arguments to the reactionaries.

But, as has been ably remarked by the late Lord Macaulay, "There is only one cure for the evils which newly acquired freedom produces: and that cure is freedom." It was quite out of the question that we should go back to the brownstone front when once we had escaped it. The wildest of the wild work of the new West Side had its uses in promoting the emancipation. Procrustes still presides over the design of our sleeping places, but it is Procrustes in the form of the Street Commissioners of 1807 and authors of the 25 x 100 lot, not Procrustes in the form of the speculative builder and author of the brown-stone front. Under the reign of the latter, no New Yorker felt any more responsible for the architecture of his house front than for the cut of his coat. He left the one to the builder as the other to the tailor, and did as other people did. But since the revolution, with its incidental Reign of Terror on the West Side, an effective responsibility has been fixed upon the householder, at least, upon the house-owner, for the looks of his house on the outside. How wonderfully fruitful in "alterations" have been these latter years. It is true that the primary object of the alterations has commonly been to supersede, not the brown-stone front, but only the high stoop, and has thus been practical rather than aesthetic. The high stoop is a relic of a social stratum much deeper than that of the brown-stone front, as deep, indeed, as the Dutch settlement of Manhattan, from which it takes its name, although the excavation of the sunk area which is a corollary of the Dutch "stoep" into a full story of basement only a foot or two below the street level, with the consequent exaggeration of the height of the stoop, is post-Batavian. The change was made to accommodate the family dining-room below, on the kitchen level, and lost its meaning when the civilized began to dine upstairs on the parlor floor and to connect with the lower regions through a dumb-waiter. From that change to the conversion of the basement into an entrance hall was but a step, apparently, but it took a generation to take it.

So that the object of that fury of reconstruction which we are witnessing is not to get rid of the brown-stone front but only of the high stoop, and indeed everybody observes many instances in which the householder has confined himself to that, and has not permitted his architect to talk him into going any further. But he must hold very strongly to Bacon's dictum that houses are made to live in and not to look on. Nothing easier than to pull down your high stoop and shift your stairs so as to get the full benefit of your frontage on your parlor floor. But nothing harder then to give any dignity to your new entrance some feet below the sidewalk, through which you enter your house much as the Eskimo enters his, through his snow tunnel. So that the crafty architect is apt to find allies in the household, when he goes about to persuade its head that he had better make a new front while he is about it.

Of course this new front may be in any fashion. But the particular "movement" which we are engaged in chronicling is a reversion to the high stoop pre-brownstone front with the high stoop left out. It is the modern analogue of that "species of second-rate, genteel houses" which Fenimore Cooper viewed with so much satisfaction in the early twenties. Specmens of this species abounded so as almost to fill and quite to characterize the tract on the lower West Side, opened to decent and "genteel" habitation by the enterprise and foresight of Trinity Church, in opening a new park and a new quarter almost exactly a century ago. One of these grew up in what were then the wilds of Yorkville, certainly not later than the early thirties (Fig. 1) and has lately served as a model, not only for a recent dwelling in the next block (Fig. 2), but really, with what it implies, for the new-old type of what one may call the "bourgeois" house of which Yorkville is coming to be the special habitat. This particular "modern instance" is, it will be agreed, highly successful as to its superstructure, and has an air not merely of the respectability which is the badge of all its tribe, but of "gentility" as Cooper hath it.

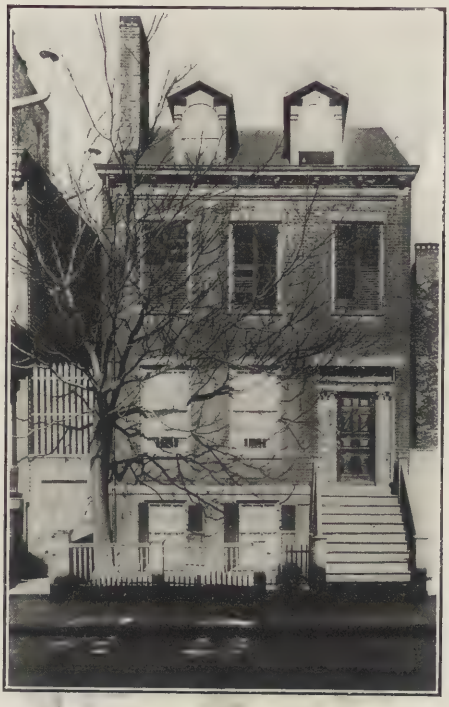


Fig. 1. The Ancient Type.
No. 73 E. 86th Street, about 1830.



Fig. 2. A Modern Instance.
No. 19 E. 86th Street, 1903.

The mildly swollen front, the keystoned lintels, so to say, of the principal story, illogical as they are, the continuous lintel formed by the entablature above,—all these are excellently "in style" and the recessed attic above does what it can to reconcile us to the loss of the visible roof with its dormers which was one of the most attractive featurees of the prototype. It should be said, however, that the particular instance of the prototype, which stands for the reproduction of its species in Yorkville, is not a very favorable specimen of that species. One misses the skilful and enjoyed craftsmanship of the carving of the doorway, of the cornice and of the missing dormers, which, albeit all in wood, gave much of what they had of grace and refinement to the old houses, and, as may still be seen in the older parts of Manhattan, were architecturally worth much more than they cost. It is in the entrance that the modern instance mainly fails to carry out the spirit of the older work. This is a much costlier front than any old one of its dimensions, made so by the substitution of actual marble for the wood which in the old houses simulated it. A literal reproduction in stone carving of the wood carving of one of such old doorways, as may still be seen, for example, in Charlton Street or Vandam, would not only have made the reproduction more effective, but would have given real distinction to the front. That course has been adopted with great success in those houses just west of the University Club, in which the old detail of the porticoes has been done in marble instead of wood, and perhaps the success of these houses, with architects if not with their clients, is responsible for the present colonial revival of which we are discoursing. But these houses are much too elaborate and costly to serve as specimens of the bourgeois house, being raised nearly or quite to the palatial point. That modification of current French work which for the most part lines Central Park East, from Seventy-ninth street to the top of Carnegie Hill, quite frequently escapes around the corner of the avenue into the side street. Here, for example, is an example, and "not a bigoted one" (Ffg. 3). It is well enough in place where it is, but it is distinctly "palatial" in its pretensions, if not in its dimensions; and so quite opposed to the unpretending homeliness, which is the architectural expression of "a comfortable bourgeoisie." On



Fig. 3. "Not a Bigoted One." No. 6 E. 79th Street.

the other hand Fig. 4 has exactly that expression. The predominance of what in the old typical house would have been the "parlor," but may in the new be the "drawing room" floor is duly preserved and emphasized, the balconied cornice above the third story agreeeably divides the front and makes it a composition, the spottiness of the combination, even, enhanced by the actual projection of the voussoirs from the field of excellent rough brickwork, gives a sprightliness not altogether to the destruction of repose. But one observes with pain that the balconied cornice is not of stonework, though modelled and painted "to that effect," but of sheet metal, and this disclosure tends to vulgarize the whole front. There is nothing to be said in favor of the imitation, except that stonework would have cost money, and that money had already been pretty profusely spent upon the front. But this is not a defence. The whole point of the scheme, being unpretentiousness, is grievously blunted by the intrusion of a false pretense, especially when the sham is also a superfluity, and is added, as Horace Greeley used to say, "wilfully, deliberately, and with naked intent to deceive." But even if this blemish were removed, by the substitution of honest stonework for fallacious sheet iron, the front would remain an "anatopism," built out of due place. It is to a bourgeois quarter that the bourgeois house should be confined, whereas the blocks between "The" avenue and Madison Avenue, are by common consent given over to houses of palatial pretensions. Between Madison and Park the bourgeois house may properly occur, while it may appropriately abound in the blocks between Park and Lexington. And one finds that such is the actual distribution, as may be observed by the street numbers of our subjects. A fine "average" sense of the fitness of things has prevailed, one may perhaps say has been imposed by a sense of proportion between the costliness of the site and the pretensions of the building thereon. The habitat of the bourgeois house extends from Madison to Lexington and from the fifties to the eighties, comprising in effect Yorkville. Beyond these boundaries bourgeois houses occur only as "single spies." Within them they are coming to occur "in battalions." And it is surely a good thing that a burgess much short of being a millionaire should yet have his home made to order.



Fig. 4. "Be it Ever So Homely."
No. 18 E. 83d Street.



Fig. 5. "Late of Paris."
No. 58 E. 79th Street.

Which of these two types (Figs. 5, 6) is the more eligible for a wide street like Seventy-ninth, in "the present state of the art"? There is no question as to the incompatibility of temper, nor as to the remoteness of origin. One smells of Paris as distinctly as the other of London. Neither can there be any question which exhibits the greater technical skill. The apparently recent Beaux artist who did the former can challenge comparison on that score very securely. His dispositions have resulted in a real and effective composition. The heavily corbelled balcony in iron over the massive basement (made massive, one apprehends, at the expense of the inmates if they should require any light on the lower floor), with the counterparting balcony in stonework over the third story, effectively sets off the two central stories as the feature of the front, effectively framed at the sides by the quoining, and effectively subordinates to it the top and the bottom. There is no lack of "scale" to the detail or of the emphasis which scale gives. In fact, the scale is so insisted on as to carry the emphasis towards the point, if not to the point, at which it becomes "emphase," a term which, even in the land of its origin, has not a complimentary connotation. And, while nobody could reasonably maintain that any of the detail was pretty, nobody could reasonably deny that all of it was knowing. After this vociferous insistence, the measures taken by the architect of the other, his velleities in the direction of division and composition, the decorated string course which takes the place of one beetling balcony, or the minute continuous string course which takes the place of the other, appear of a mawkish mildness and ineffectuality. It is true that he has provided, more Londinensi, a negotiable side door and "tradesman's entrance," whereas in the other case, one is driven to figure the tradesman as diving at the side down a dark tunnel, to emerge somewhere towards the rear of the lot. But, upon the whole, the front, compared with the other, is feeble, albeit of a gentlemanly feebleness, like that of Cousin Feenix or Mr. Twemlow. (In fact, the clearest impression the front conveys is that the house ought to be inhabited out of Dickens.) One recalls Matthew Arnold's remark, controverting Palgrave's expression of common contempt for the "feeble frivolities" of the Rue de Rivoli, along with the "pale commonplace" of Belgravia, asking Palgrave to observe that, though show and splendour and pleasure may be things unworthy to express alone and for their own sakes, the architecture of the Rue

de Rivoli really expresses them, whereas the architecture of Belgravia "merely expresses the impotence of the architect to express anything." This may not be quite the whole case. One may imagine the Parisian bourgeois sitting down behind the front of No. 58 East 79th with great satisfaction, if he could afford to inhabit it, whereas it is quite certain that the British "burgess," the British Philistine, would not have it, even if his architect were able to do it for him. He would feel that it was much too expressive, and so, for that matter, would the British Duke. British manners inculcate repression, not expression. When expressiveness comes to the point of demonstrativeness, as it so clearly does in this front, the Briton, trained to avoid demonstrativeness, would regard such expressiveness, for his own domestic purposes, as architecturally analogous to pantomimic contortions of countenance, or talking with one's hands, practices to be abandoned to "chattering and gesticulating Frenchmen." Instead of positive architectural quality, he would prefer a gentle and retiring absence of quality, and such a negation the owner of No. 63 East 79th has undoubtedly attained.

But neither of these edifices quite fulfils the practical definition of a bourgeois house in New York. Such a house must, in the first place, be narrow. It can hardly occupy a full city lot, inadequate as even that lot is to a mansion of pretension. It must be, in its frontage, the quotient of the customary division of the customary multiple of the city lot, at most the twenty foot front, which is a fifth of four lots, and then diminishing to the 18.9, which is a fourth of three, and the 16.8, which is a third of two. For all these frontages it is settled, or at least there is a practical consensus to the effect that the "American basement," with the full frontage available on the second floor, is the most convenient arrangement, and the most economical in reality in spite of the "waste" of the entrance hall. And the narrower the front, the more desirable it is, practically and especially architecturally, that the entrance be at the centre. Even with the actual bisection of a single lot, upon



Fig. 6. "Late of London." No. 63 E. 79th Street.

which none of the projectors of the new bourgeois houses appears to have ventured, with its front expanse of only twelve feet six, this arrangement seems much the most eligible.

As a matter of fact, one can imagine a twelve-foot-six house built on this scheme which should be fairly habitable and even fairly presentable, whereas it is hard to imagine such a house built on any other.

Here, for example, are two fronts which do not appear to transcend the 18.9 class, and which would be painful objects with any conceivable modification of the "high stoop" arrangement, if they were presented isolated, as here. The brownstone row is a great mitigation of the brownstone front, quite depriving its component fronts, of course, of individuality or character, but yet mercifully dissembling their separate outrageousness. Each of these is in the strictest sect, that modification of Georgian which we call "old New York," excepting the dormers of Fig. 7, which are of a questionable modernity of treatment. The two show what legitimate variety may be attained within what might seem to be the Procrustean limits of the style. The first is rather "anatopistical," being on that side of "the avenue," and even in that block between Fifth and Sixth, which is by common consent given over, as to the renewals of its brown-stone frontages, to the palatial and pretentious rather than to the homely and bourgeois. As those know who have had the privilege of visiting it, it is interiorly a colonial museum, the furniture and decorations and "objects" in general being those of a century ago, and the collections have been so intelligently made and the new kept so consistent with the actual old that it is probably unique. The frontage is an appropriate envelope for such an abode. In each of these fronts there is room not only for a dignified entrance but for the service entrance alongside. Of course it is open to anybody to maintain that a house of less than the full frontage of a city lot ought not to be erected at all on a lot of that depth. Which is only another way of saying, with Mr. G. W. Steevens, that, "if you are going to live in New York, it is well to take the precaution of being a millionaire." But, since narrower houses must be built, and fronts make up in altitude what they lack in latitude, the general arrangement of these two houses, which is indeed, the general arrangement of the new bourgeois house in general, must commend itself as the most eligible for a narrow frontage.



Fig. 7. "A Colonial Museum." No. 64 W. 55th Street. R. C. Gildersleeve, Architect.



Fig. 8. "Little Old New York."

It is in this novelty of arrangement, in the substitution of the basement for the high stoop, that the new old New York mainly differs in aspect from the veritable old. Fenimore Cooper, to recur to him, found much fault with the high stoop, with what he called "its execrable flight of steps." But, writing in the early twenties, he adds: "A better taste is, however, gradually making its way, and houses with regular basements are seen, in which the inhabitants can ascend to their apartments without encountering the dangers that in winter must frequently equal those of an ascent to the summit of Mount Blanc," as he hyperbolically puts it. But in fact the better taste did not make much way, and the high stoop, as we have seen, long outlasted the house to which it was attached. What Cooper meant by the "regular basement" is doubtless the arrangement shown in Fig. 9, two houses which are probably more literal revivals of old New York than almost any others among the new. Our respected grandparents, if they happened to dwell on the south side of Washington Square, in the houses built just after it had ceased to be a potter's field and been opened as a parade ground, dwelt in such. The houses are "regular basements" in that one does not have to climb a giddy flight to the door bell, and the sunken story is distinctly mustered out of service as the family dining room, as indeed it was in the costlier kind of houses in Cooper's time, when the "back parlor" was the salle-a-manger. And generally, with the old high stoop as with the brownstone high stoop, among tenants of "moderate means" back parlor or front basement used as such indifferently according to the domestic exigencies. The front basements of these new-old dwellings are evidently unavailable for refection, or for anything but "offices" and one looking down the area must feel moved to compassion at the lot of the "officials," the lot of those Cyclopean three who in sounding caverns under Aetna wrought in fire. This compromise is on this account ineligible. And one may say that the desire these fronts show to get an available "room" instead of a mere entrance hall on the ground floor, as well as to establish a dungeon keep for servants' quarters, puts it out of practical competition for our modern uses. The architectural disadvantage of having the entrance at the side is manifest here and becomes increasingly manifest as the front is narrowed. The unsightliness of the disposition is doubtless enhanced and emphasized by the high stoop, but it remains and continues to be grievous even after the high stoop has been eliminated, as it now is in the great majority of new houses.



Fig. 9. "Going Back to Grandma's."
Nos. 118-120 E. 70th Street.
H. Davis Ives and Gay & Nash, Architects.

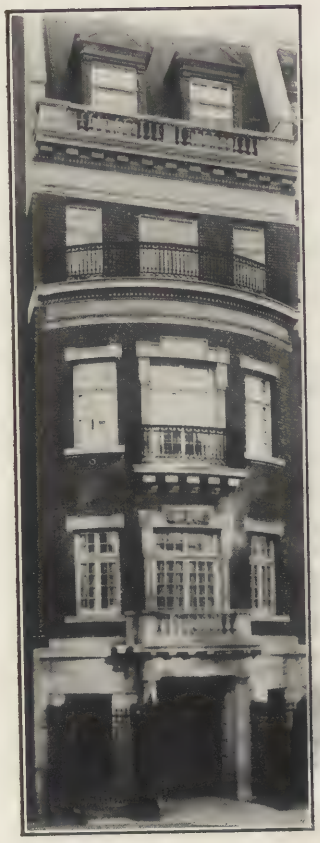


Fig. 10. "A Swell Front."
No. 40 E. 74th Street.
A. M. Allen, Architect.

. The swell front, epidemic in Boston, was never more than sporadic in old New York. It has its attractiveness, especially in the case of an isolated swell front in a block all otherwise in one plane of flat front, for its inmates are thus enabled to look past their neighbors, whereas the result of a row of swell fronts is only that each of them is enabled to command just so much of the view of the neighbors, as the neighbors can command of him. The prevalence of this relation of give and take suggests an inquisitive community. There are scarcely "rows" of swell fronts on Manhattan Island. Now and then a pair is about as far as the New York builder went in his old days. And even then he had not the grace to borrow from Boston the feature which was most commendable in the Boston house, the enclosure within the house and under shelter of the front steps, in place of the high stoop exposed to the weather. Now, however, in this fury of reconstructing fronts, subject only to the building laws, the swell front offers the reconstructor of a single front advantages equal or superior to those of a mere bay window, so long as his neighbors do not also reconstruct. It lends itself with facility to the narrow bourgeois house, and some of the designers of this edifice have made good use of it. We have already had one rather favorable instance in Fig. 2. Here are two more, which cannot be called unfavorable. The two are much alike in general scheme, excepting for the adoption of a triple division of the front laterally in the one case, against a double division in the other. But in each case the basement partakes the curve of the superstructure, thus evading a knotty problem, and in each case the swell extends through only two stories, and is surmounted with a "practicable" balcony, behind which the remaining story and attic rise in a flat and recessed plane. The triple division is evidently invited by the greater frontage, and evidently gives scope for a more effective treatment. Especially does it escape the awkwardness of resting the most solid and emphatic solid of the building, the central pier of the superstructure, upon the most aching void, the aperture of the entrance, an awkwardness not to be evaded if one insists upon both a double division and a central entrance. But nobody who sees the original of Fig. 11 in situ, cowering in the shadow of a monstrous and overwhelming "family hotel," will blame the architect for giving his clients such an outlook on life as can be obtained by peering around the corner.

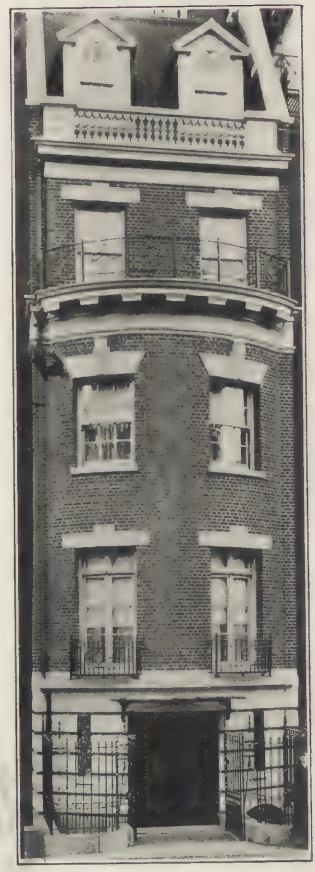


Fig. 11. "Around the Corner."
No. 28 E. 63d Street.
Alfred H. Taylor, Architect.

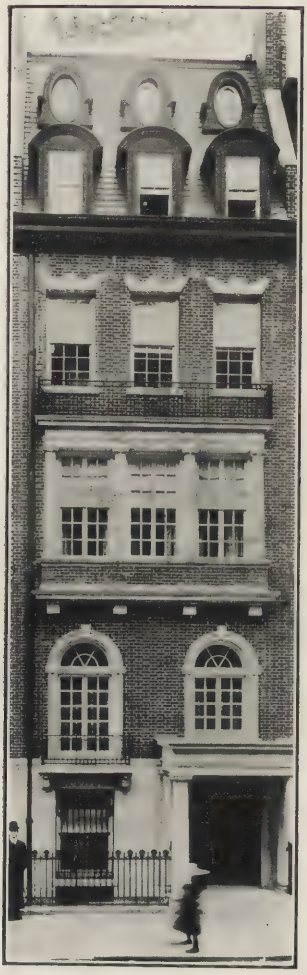


Fig. 12. "Old-Fashioned Gentility." No. 16 E. 64th Street. S. E. Gage, Architect.

Fig. 12 is a rather awful example of the result of trying to obtain a "practicable" room, other than a mere vestibule, on the ground level of a narrow basement house. From the absence of a "tradesmen's entrance" one infers that the tradesman must dive to the sounding caverns. And from the presence of a sixth story that from those unlit abysses where the servants are compelled to live by day, they are doomed at night to ascend to garrets which humanity would reserve for air chambers. It is greatly to the credit of the architect that he has nevertheless contrived to impart to his front such an aspect of old-fashioned gentility. But one cannot help noticing that, in order to do this, under the conditions, he has been compelled not only to mutilate with the "order" upon which he or his clients insisted for his porch, one of the two openings of his "premier," but also to raise to the third story the colonnaded triple window which is the feature of his front, and mainly gives it character. The iron railing which surmounts this feature can hardly be called a practicable balcony, when one observes the interval between its floor and the sills of the windows above. "In that connection" the balcony has rather the look of a supererogatory fire escape, available only in times of mortal peril. In these respects Fig. 13 shows to great advantage. By abandoning the pretence that the entrance hall is anything else, the architect has been enabled to make a decent and presentable tradesmen's entrance. He has been enabled to centre his entrance, and by reason of so centering it, to present on his principal story, his principal feature, the Palladian window, which is one of the most admirable inventions of that Renaissance which, according to the more militant Goths, "never invented anything." In the handbooks of the colonial carpenter, by the way, this feature is described as a "Venitian window," although the classical instance of its use is of course Palladio's basilica of Vicenza. At all events it is a very happy feature for the centre of a narrow front, and, as the illustration shows, it readily lends itself to the double division of the front above it, as it would likewise lend itself to a triple division of the same.



Fig. 13. "A Palladian Window." No. 61 E. 82d Street.

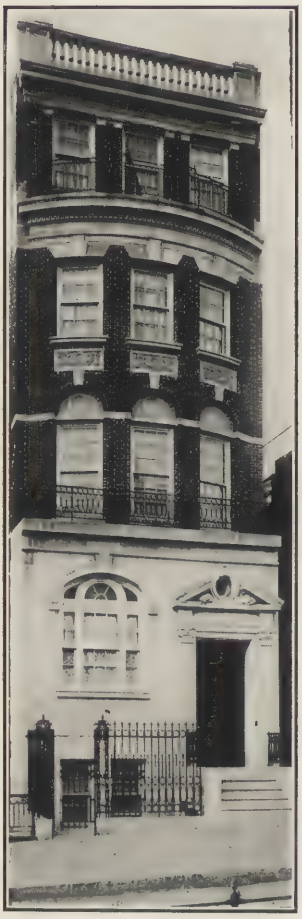


Fig. 14. "A Stilted Basement." No. 926 Park Avenue.

A compromise between the basement and the high stoop looks like an alluring proposition, until one has tried it; but it is fairly certain that no architect will willingly try it oftener than once. Here is an attempt in that direction (Fig. 14). Evidently this sunken story is not so inhumane to the household staff as it would be if it were sunken still further, and out of sight, and evidently it provides reasonable access for the butcher and the grocer. But as evidently it is not a really well-lighted nor habitable living room and evidently the stilting of the basement which it enforces is, architecturally, highly ineligible, although the arrangement gains a negotiable and enclosable living or reception room alongside of the front door. But by doubling the number of steps up to the front door the basement would become fairly light and habitable, as in the case of the old-fashioned high stoop house of the twenties, although to make it really eligible for a living room, it would be necessary to treble the number, as in the fully developed high stoop of the brownstone period. The compromise loses the respective advantages of both the types between which it is a compromise, while stilting the substructure and "jacking up" the superstructure, in a manner quite destructive of repose.



Fig. 15. "Letting It Spindle." No. 127 E. 73d Street. McKim, Mead & White, Archs.

"Keeping it down" is indeed one of the problems of the tall and narrow front which any but immoderate means compel as the type of private dwelling in New York. It may be ignored in a basement house, however, as well as in a high stoop house or in an unsuccessful compromise, such as we have been considering. It has been ignored, and one may almost say defied, in Fig. 15, which has been left to spindle as it would. In most of the fronts we have passed in review, in all, perhaps, of those which are most successful, there has been a grouping of the second and third stories, and a subordination to them of the top and the bottom which not only complies with the Aristotelian precept enjoining a beginning, a middle and an end, but tends to dissemble the inordinate height by centering attention on a subdivision of it. In the present instance, however, not only is the unit of composition confined to a single story, but the demarkation between the stories is emphasized. Moreover, the stories diminish progressively as they rise, so as not only to deprive the front of "rhythm," but, in accordance with a familiar law of optics, to exaggerate to the eye the actual height, giving its sum of more to that which had too much.

Not by any means so, but quite the reverse, with Fig. 16, in which the architect has apparently devoted all his attention to keeping it down. Very possibly that was not his intention at all, but only to reproduce the old "second rate, genteel house" on which Fenimore Cooper looked with so much pleasure eighty years ago, as literally as circumstances would admit, leaving out the half sunk story, and beginning with the parlor floor. It is in fact the most literal reproduction which our list furnishes. But you cannot reproduce a two-story house, with a half story of basement below and a half story of attic above, wifh dormers in a sloping roof, in a four-story house, by merely "playing" that the two upper stories are incidental to the roof, when the real roof is plainly flat, and you might better, practically, have built a wall four stories high. As Dick Swiveller's Marchioness remarked of her infusion of orange peel and water, "If you make believe very much, it's quite nice," but your imagination must lend a helping hand to the intention, in spite of your perceptions. It is true that the reproduction of the antique detail gives the front a quaint attractiveness in spite of its incongruities.



Fig. 16. "Keeping it Down."
No. 123 E. 73d Street.
Howard Burnside Potter, Architect.



Fig. 17.
No. 43 E. 63d Street.



Fig. 18. No. 111 E. 71st St.



Fig. 19.
No. 69 East 80th Street

Perhaps the most remarkable thing about the original of Fig. 20 is that while it is scarcely completed, it is already placarded for sale. It is so evidently computed for individual requirements, so distinctly "custom made," and this is the chief attractiveness of it, so built to be lived in by the man who lives in it, that the announcement is startling. One would as soon think of seeing advertised a new set of false teeth especially adapted to the oral anfractuosities of the late owner. Nobody can imagine the speculative builder putting up this tenement, drawing a bow at a venture if peradventure he might bring down the "average man." Possibly the late owner was pecuniarily implicated in the late disclosures touching life insurance. More likely, being of the irascible and furibund temper which so often attends pronounced individuality, he was disgusted with his own idea after he had seen it materialized, and, after an explosive altercation with his architect put out his placard by way of washing his hands of the whole transaction. He had his idea, there is no doubt about that, although it is presented in a polyglot version, with nothing of "Old New York" about it but the small window panes and the lintels, which openly wrangle with the newly imported "marquise" at the base. One cannot exactly admire a mullion half a brick wide, nor indeed, much else of the detail. Neither can the neighbor overshadowed and put under surveillance by the side windows be expected to enjoy it. But for all that it looks like a habitable house, as habitable, perhaps, as the conditions admitted, and in particular secures quite all the light to which it is entitled. The very emphatic "lining" of the brickwork is one of the characterizing



Fig. 20. "Built to Live In."
No. 24 E. 62d Street.
C. P. Karr, Architect.

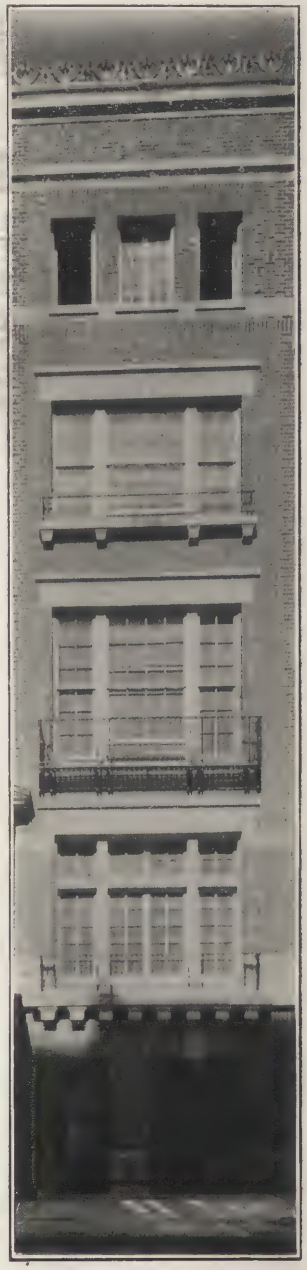


Fig. 21. "Its Simplest Expression."
No. 119 E. 70th Street.
A. N. Allen, Architect.

things about it. One wonders what the purveyors of "builders' supplies" think of these changes of fashion. Are there anymore makers of "Philadelphia pressed brick," and what do they do with their product? The bewilderment of the brick-makers at finding preferred to their smoothest and most uniform output the rough discolored bricks which they had been used to thinking the refuse and offal of their yards can have been equalled only by the bewilderment of the bricklayers in finding that the imperceptible hair joint in which they had been accustomed to take a workmanlike pride was superseded by the wide rough and unequal juncture which the new architect required of them.

Fig. 21 is as individual as Fig. 20 without being at all eccentric. One cannot exactly call it an artistic success, but certainly one cannot call it an artistic failure. Nothing can be offensive which meets actual requirements in a straightforward way, and without pretence. This front quite does that. The aim of the designer has apparently been to reduce the narrow front to its simplest expression, while attaining the maximum of light. The expression otherwise is so simple that one rather wonders why he did not employ metal instead of stone for his lintels, an arrangement which seems tempting not only by its economy, but also by its decorative possibilities. This front with all its prosaic plainness, is good prose, not making any poetical pretences. And, plain as it is, it is an instance of "simplex munditiis" and the patterning of the brickwork and the cresting, unobtrusive as they are, give it a touch of grace.



Fig. 22. "Air and Light."
Nos. 105-107 E. 73d Street.
Atterbury & Phelps, Architects.

Fig. 22 is of the same inoffensive unpretentiousness, and shows the same straightforward satisfaction of the practical requirements. Neither this nor the last has anything of "Old New York" except the small panes of the windows. Fig. 22 in fact rather recalls London, not Bloomsbury nor Belgravia, but the studio quarter "out Chelsea way." The small pane, by the way, is a clear solecism in these two cases. Why should an architect take trouble to provide a maximum of opening for light and then darken it with a maximum of sash and a minimum of glass? There can be no reason but "the style" and that is not a good reason. Our grandparents used the largest panes of glass they could command, or afford. During the Gothic revival, one enthusiastic revivalist, enamored of the lead publicly pronounced plate-glass to be "an emanation from the jaws of hell," and the revivalists of the Georgian, equally enamored of the rectangular lattice in wood work, seem to be of that opinion. But it is certain that the occupants of their houses will replace these sashes with others more eligible.



Fig. 23. "A Jacobean Garden Front."
No. 28 E. 64th Street.
Kirby, Pettit & Green, Architects.

Evidently enough Fig. 23 does not properly come within our classification of a bourgeois house. Its costliness, its pretentiousness, its elaboration, the apparent "boast of heraldry" (though it probably isn't), in the effective cartouche of the central panel and in the griffins at the top of the bay, combine to take it out of that class. It is worth giving here only on its merits as a picturesque object. These are doubtless considerable. But it is not only an example of picturesque and even palatial stateliness instead of "a comfortable bourgeoisie," but it is questionable as a city street front. As one pavilion in the garden front of a Jacobean mansion, fronting a terrace furnished with peacocks, say, and a lake, it would be as entirely in place as it is entirely out of place in a New York side street. And it has not been adapted so much as conveyed. The bay is a feature of altogether too much weight and instance to be left without more visible means of support than are furnished by the columns at its base, to say nothing of the Stygian darkness to which the arrangement relegates the basement. But on the other hand it will not be denied that it is extremely well studied and successful in its detail, and in its entirety something to look at and to make a picture of. And, though this measure of success is not so rare as it was ten years ago, it is not yet so common that we can afford to ignore an example of it when it comes in our way.

This is what one may call an example of the forced or factitious picturesque. Fig. 24 is equally an example of the unforced and, as one may say, vernacular picturesque. It comes distinctly within our limits as to size and pretension or the lack of them. But there is nothing about it of "Old New York" and nothing of bourgeoisie in so far as bourgeoisie may be held to imply Philistinism, It recalls English collegiate Gothic so far as it recalls any historical style at all, a reminiscence which might have been emphasized by the use for the entrance of the Tudor arch which is pretty plainly "indicated" instead of the anomalous keystone lintel, if it be so, actually employed. But in the main the front is a straightforward putting together, or literal "composition" of

the material to the best practical purpose and its picturesqueness so unforced as to seem instinctive and unconscious, and, of course, all the better for that. It is Swift, about the last English writer to whom one would have looked for such an expression, who said:—"A little grain of the romance is no ill ingredient to preserve and exalt the dignity of human nature;" and as with character so equally with architecture. A smug successful grocer might not find himself at home behind this front, but an artist would find himself entirely so.

But, of course, welcome as this front is to one who comes upon it casually in his walks abroad, and by way of exception, it does not constitute a type, such as that to which most of the houses in our list seem by a common impulse to conform. Thus far they are sporadic, and come as "single spies." What will happen when they come, if they come, as "battalions" which is to say block-fronts? We know, on the authority of a very intelligent witness, Mrs. Trollope, to-wit, what happened to in the case of their predecessors and prototype. They affected such a witness, as their successors of the "old brown sandstone" period affected us, as monotonous, though not also as outrageous. It was in 1830, when, according to the British tourist "Hudson Square and its neighborhood is, I believe, the most fashionable part of the town," Hudson Square, of course, being what is known to us as St. John's Park. "The great defect in the houses," she goes on, "is their extreme uniformity—when you have seen one, you have seen all." In fact, it is a good thing that, when there were no architects, the carpenters who did the building should have restricted themselves to the limited, but safe and select repertory of these excellent manuals "The Practical House Carpenter," and "The Young Carpenter's Assistant."



Fig. 24. "A Grain of the Romance." No. 106 E. 74th Street.

It may even be argued that it was by confining themselves to a few forms that the old mechanics came to execute these so well.

The architects who have succeeded the carpenters and are engaged in the revival of Old New York have access to a much larger stock of forms, and the danger to be apprehended from the revival is really rather lack of comity than lack of variety.



FIG. 25. "DWELLING TOGETHER IN UNITY."
Nos. 106-110 East 70th Street.
The Architect of No. 106 is Chas. I. Berg, and of No. 108 Adams & Warren.

To avoid this danger requires mainly a spirit of conformity upon the part of the architects themselves. Seeing that we have no prefecture to enforce conformity, we must rely upon professional comity to take its place. Fig. 25 is a gratifying



FIG. 26. ISOLATING THE BROWNSTONE FRONT.
Nos. 64-68 East 81st Street. The Architects of No. 68 are Pickering & Walker.

instance of such conformity. The nearest house is apparently by a different architect from the other two, and in its detail and even its disposition different. But the newly arrived neighbor shows himself neighborly by continuing the main lines of the existing buildings and the three dwell together in agreeable unity. A block



FIG. 27. "DECENCIES FOREVER."
Nos. 115-125 East 69th Street.

front designed with this degree of conformity and this degree of independence would lack neither desirable uniformity nor desirable variety, and each of its component fronts would look better for the conjunction.

It must be owned that the owners of existing buildings of an older type are exempted from the operations of comity. For one thing, the projectors of the newer have found it practicable under the building laws to advance their fronts so as to shut in the pioneers on both sides. Witness Fig. 26, in which the unfortunate owner of the middle house finds his front equally flouted and hustled by the mild Georgian of one side and the bristling Parisian of the other, darkened, and left

lonesome and absurd, and himself under a strong compulsion to come up to the new alignment with a new front.

The same fate has befallen the submerged brownstone front in Fig. 27, whose neighbors equally confine their neighborliness to one another. But they, too, show no lack among themselves of the comity they withhold from the old settler.

"Old New York" is by no means the only style in which such uniformity can be attained, nor perhaps the best style. One might reasonably deplore the state of mind of those who are "content to dwell in decencies forever," and

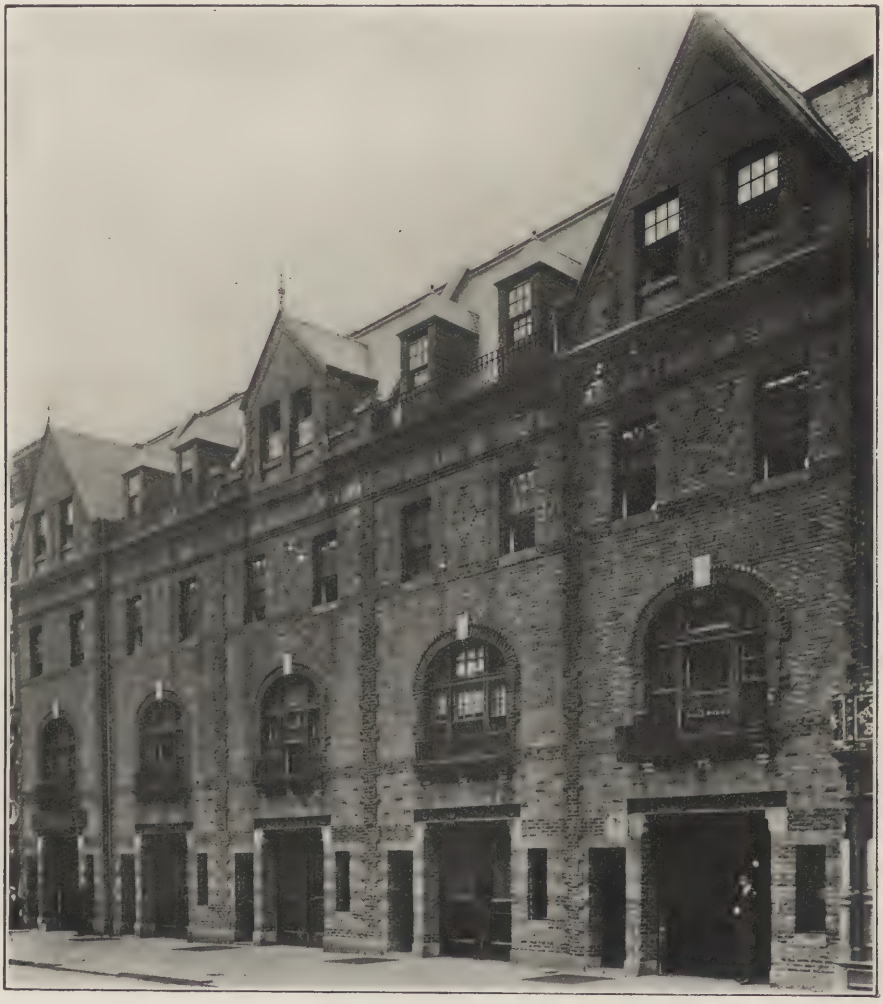


FIG. 28. HOMELY PICTURESQUENESS.
Nos. 168-174 East 75th Street.

desire "a little grain of the romance," such as was attained in Fig. 24, such as is attained still more in the homely picturesqueness of Fig. 28, a row of mere stables with incidental dwellings above, which is yet a model in its straightforward and unpretentious use of the most unpretentious materials, including even the metallic lintels, and shows a minimum expenditure of everything except brains, by the ungrudging employment of which it attains the highest success, one may say, open to a modern architect, in the production of a work which is of no style and which yet has style. It is at any rate one of the rarest of the modern architect's successes.

Montgomery Schuyler.



FIG. 1.—THE WENTWORTH HOUSE.

Lake Shore Drive, Chicago, Ill. Howard Shaw, Architect.

(Photo by Henry Fuermann.)



FIG. 2.—THE HOUSE OF MR. CHAS. KING.

Lake Forest, Ill. Howard Shaw, Architect

Some Houses By Mr. Howard Shaw

There are few architects practicing in the Middle West at the present time whose work stands higher than that of Mr. Howard Shaw. It has been confined hitherto chiefly to lofts and factories and to private dwellings, and in both of these departments of design his buildings indicate unmistakably the power on his part of original and vigorous architectural thinking. A number of his loft and factory buildings are among the very best as yet erected by an American architect, and his own house at Lake Forest, Ill., possesses rare merits both in originality of design and in the quality of the feeling it expresses. It is true that some of Mr. Shaw's houses give an impression that he is not always as happy in realizing an idea as he is in conceiving it; but, unlike some of his associates in the Middle West, his ideas are always virile and positive, and it is only occasionally that the result suggests a certain lack of taste, which, doubtless, is more often due to the conditions under which the architect works than to the architect himself.

It is with much satisfaction, consequently, that the Architectural Record presents to its readers herewith some illustrations taken from the large number of dwellings which Mr. Shaw has designed in Chicago and its vicinity. These houses fall naturally into two groups. The first of these groups consists of residences situated in Chicago, erected on small lots, and separated from their neighbors, if at all, only by a few feet of open space. The other consists of residences, situated for the most part at Lake Forest on comparatively spacious sites, with trees in their immediate vicinity. They do not attain the dignity of country estates; but they are country houses, belonging to a type very popular in and near the Middle Western cities. The houses included under each of these classifications possess certain marked and interesting characteristics.

The houses situated in Chicago possess, of course, a physiognomy entirely different from those situated at Lake Forest. They are all of them constructed of brick, high compared to their width, and are designed chiefly with reference to their distance from the street. In only one instance, that of the Wentworth House on Lake Shore Drive, is the building placed on the street line, and this is the only case in which the roof plays no part in the appearance of the façade. The front is capped by a cornice and a parapet, and, inasmuch as Mr. Shaw usually depends a good deal on the effect of his roof, its omission in this case is doubtless due to



FIG. 3.—THE RESIDENCE OF MR. C. STARKWEATHER. Howard Shaw, Architect.
1900 Calumet Avenue, Chicago, Ill. (Photo by H. Fuermann.)

the proximity of the house to the street line, which would make a sloping roof an inconspicuous feature of the building. In general, however, it cannot be said that this façade is one of the best of Mr. Shaw's designs. The heavy quoining with which the arch of the entrance is surrounded, and which might be appropriate, in case it were fitted into a freer use of stone in the front is, in this



FIG. 4.—DINING-ROOM IN THE HOUSE OF MR. A. J. MASSON.
Chicago, Ill. Howard Shaw, Architect.
(Photo by H. Fuermann.)

case, a solecism, and in some other respects the detail is unnecessarily and rather unpleasantly coarse. The dwelling belonging to Mr. C. Starkweather, at 1900 Calumet Avenue, Chicago, is, on the other hand, a much pleasanter performance. The house is an excellent illustration of the proper way to adapt the forms of Georgian architecture to contemporary uses. The derivation is incontestable, while at the same time the modifications give it an entirely fresh value; and this novel value is obtained, not only by innovations in detail but by a departure throughout the whole design from the studious understatement, the excessive reticence, by which the spirit of Georgian architecture was restricted. The much more positive character of the brickwork and of the stone trimmings accounts largely for the unconventional vigor of the effect of the building, while the wooden parapet, which crowns the edge of the roof, is a very happy idea. As much cannot be said of the window over the entrance porch and of some of the details of the entrance porch itself; but with these exceptions, the design is a model of its kind.

Turning to the house of Mr. A. J. Masson and that of Mr. A. Bolza, one



FIG. 5.—THE RESIDENCE OF MR. A. J. MASSON. Howard Shaw, Architect.
Woodlawn Avenue, Chicago, Ill. (Photo by H. Fuermann.)

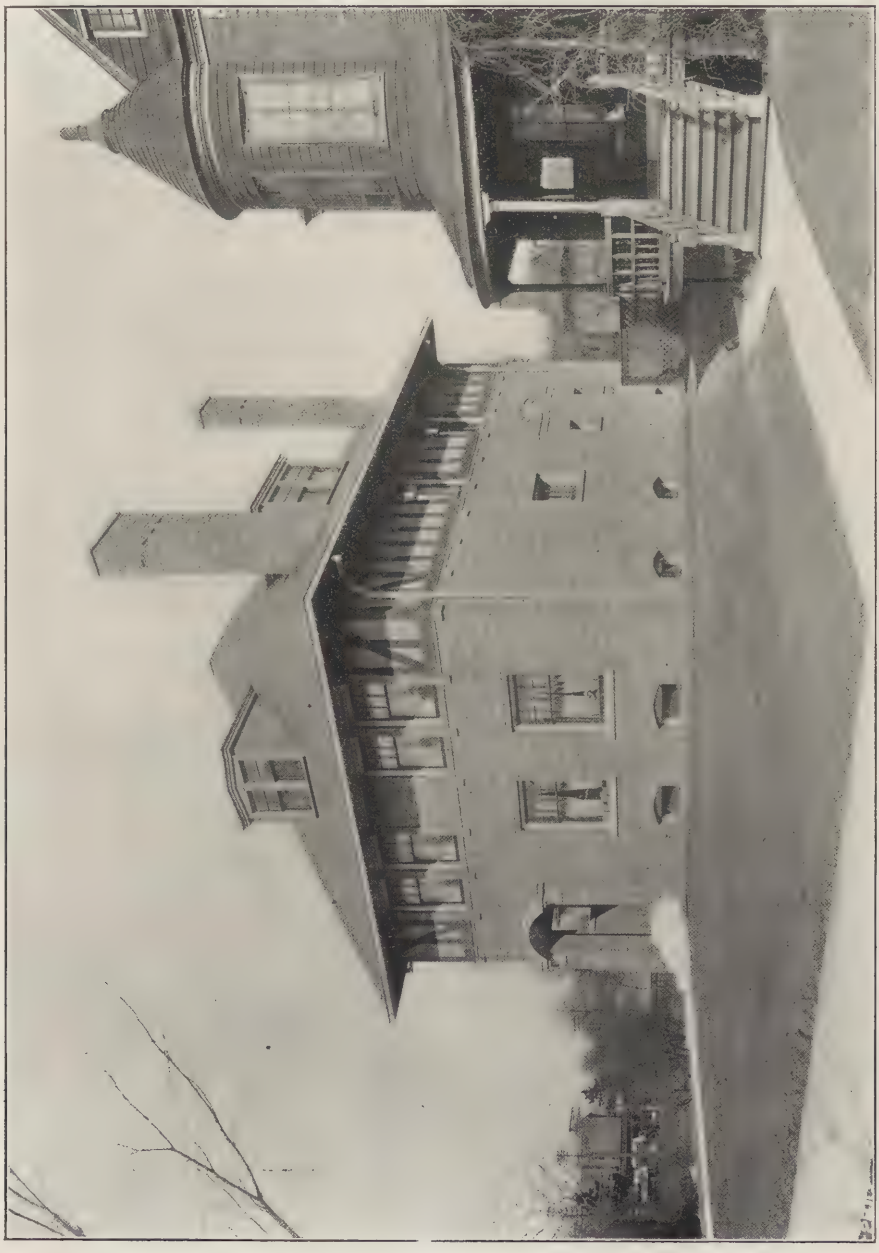


FIG. 6.—THE RESIDENCE OF A. BOLZA. Howard Shaw, Architect.
(Photo by H. Fuermann.)
Lexington Avenue, Chicago, Ill.



FIG. 7.—DINING-ROOM OF THE DE WOLF HOUSE. Howard Shaw, Architect.
(Photo by H. Fuermann.)
Lake Forest, Ill.

cannot help being struck by the loss which a house suffers from the lack of a proper setting. These two residences are more detached than the two already considered, and a greater distance separates them from the street line. They would not only be much improved by some enclosure of the lot and some planting of the grounds, but they are in crying need of such treatment, in order to relieve the bleakness of their surroundings. The reader has only to turn to the picture of the Starkweather house, in order to appreciate the value of a railing and a gate to houses of this kind, and this value is very much increased when a still larger stretch of yard separates the entrance door from the sidewalk. It is a thousand times a pity that the owners of American houses are, as a rule, so loth to spend money in establishing an architectural relation between the building and the site, because when such a relation is not established, no completeness of effect can be expected or obtained. Mr. Shaw has done the best that he could with these two dwellings, but they necessarily remain in the mutilated condition of pictures without a frame. Of the two we prefer the Bolza house, on Lexington, Avenue. The design of the Masson house is more elaborately conceived; but it is not by any means so happily carried out. It lacks, indeed, the quality of sincerity, which is, as a rule, so conspicuously present in Mr. Shaw's work. The Bolza house is, on the other hand, an entirely sincere performance. The architect evidently had very little money to spend in embellishing his façade, and he has been obliged consequently to put up with a scarcity of ornamental material. But he has obtained, by means of a plain brick wall varied above with some half timber work, and by virtue of good proportions and spacing, an effect which is not the less attractive because it is so entirely simple.



FIG. 8.—THE DE WOLF RESIDENCE.

Lake Forest, Ill. Howard Shaw, Architect.

(Photo by H. Fuermann.)

Probably every architect, when he changes from designing a city house to designing one which is to be situated in the country, breathes more freely. A city house is at best nothing more than a façade, and it is a façade whose neighbors are as often as not making faces at it, whereas a country house contains at worst the chance of a complete opportunity. In the country houses of Mr. Howard Shaw, illustrated herewith, the attractive buildings, we must make one negative comment, which applies not only to them, but to the great majority of similar houses erected in and near the large Western cities. Not enough attention is paid to their landscape architecture, and this neglect is so general and so inimical to any complete propriety of effect that the responsibility for it must be traced to the owners rather than to the architects.



FIG. 9.—HALLWAY IN THE COLVIN HOUSE.

Lake Forest, Ill. Howard Shaw, Architect.

(Photo by H. Fuermann.)

designs certainly seem to reveal a more expansive state of mind on the part of the architect. They convey a feeling and express a point of view of which one obtains little suggestion in the city houses; and even though built, for the most part, of perishable materials, they possess that kind of propriety which is a promise they will grow better as they grow older. Before, however, coming to a specific consideration of these very

The unfortunate fact is that the average well-to-do American, even when he has the sense to employ a well-trained architect, fails wholly to appreciate the vital importance of carefully preparing the grounds around his house for the reception of the building. In a great many instances, he himself decides on the location of the house without consulting the architect, and not infrequently the manner in which

the house is to be approached is imposed upon its designer. Then, after the house is built, its mistress is usually considered to be fully competent to plan the garden, if there is to be any, and to decide in what manner the grounds and the flower-beds shall be planted; while if she is doubtful of her own knowledge and ability, she depends for assistance upon the knowledge of her German or Irish gardener. In the great majority of cases, however, no flower garden which deserves the dignity of the name is laid out, and the owners of these places voluntarily miss the high and fruitful pleasure which is to be derived from a close and intelligent interest in flowers and shrubs. The consequence is that the surroundings of these houses are usually empty and forlorn, and the feeble attempts which are made to embellish them add nothing at all to the propriety and effectiveness in the architecture.

In many cases this neglect of landscape architecture is due not to any indisposition to spend money for the purpose of obtaining a result, known to be architecturally valuable, but to certain erroneous ideas and stubborn prejudices. Every essay in landscape architecture is classed as formal gardening, and formal gardening is out of favor in the West. Many well-to-do people associate it with the big, ornate Eastern houses, which they do not like; and it seems to them wholly out of keeping with the simple, unpretentious, and comfortable houses which they are proposing to build. This prejudice, and the association of ideas on which it is based, receives a certain justification, because, as a matter of fact, the majority of places which have been



FIG. 10.—LIVING-ROOM IN THE KING HOUSE.
Lake Forest, Ill. Howard Shaw, Architect.
(Photo by H. Fuermann.)



FIG. 10.—THE COLVIN HOUSE. Howard Shaw, Architect.
(Photo by H. Fuermann.)
Lake Forest, Ill.



FIG. 11.—THE HOUSE OF MR. CHAS. KING.
(Photo by H. Fuermann.)

Lake Forest, Ill.

Howard Shaw, Architect.



FIG. 12.—DINING-ROOM IN THE KING HOUSE.
(Photo by H. Fuermann.)

Lake Forest, Ill. Howard Shaw, Architect.

equipped with a full supply of landscape architecture, have been elaborate and pretentious estates. But it does not follow that the principles of landscape design are not applicable to smaller and more modest places, and that, when applied, the result may not be both simple and unpretentious. Neither does it follow that the design should be formal in the sense that it should be geometrical, elaborate, or stiff. All that does follow is that the house, the grounds, and all of their contents, should be carefully arranged and composed in order to make them look their best; and such a design means in general two different things. It means that, in looking towards the house from any of the inevitable points of view, the planting should be used so as properly to frame the house, while, on the other hand, in looking from the house towards the garden, the landscape architecture should be used to frame the shrubbery and the flowers.

In truth, the plots, consisting of a few acres of flat land on which the majority of the better class of Western houses are erected, require landscape treatment as much as the largest country estates. It must be remembered that they depend for their interest and attractiveness exclusively upon their own resources. It is very rare that they overlook a large and beautiful landscape. If, consequently, they are to possess any peculiar quality of distinction, any special interest and beauty separating them from other houses in the same vicinity, it can only be derived from developing their domestic possibilities. They must depend, that is, for their completer comeliness upon the intelligent use of artificial means, upon approaches laid out so that the house will be seen in just the



FIG. 13.—ENTRANCE TO THE COLVIN PLACE.
Lake Forest, Ill. Howard Shaw, Architect.
(Photo by H. Fuermann.)



FIG. 14.—THE HOUSE OF MR. JOHN DORR BRADLEY.
(Photo by H. Fuermann.)

Lake Forest, Ill. Howard Shaw, Architect.

right way, upon planting which will fill up bare spaces, and complete the effect both of the natural growth and of the architectural dispositions, and finally upon gardens, properly situated in reference to the house, properly scaled for their situation, and properly planted for their size and plan. All this designing requires as much training, experience and taste as the design of the house, and it should be entrusted to the architect who draws the plans for the house. Moreover, when the grounds in the vicinity of an attractive house are treated in this way, they can be made the source of as fine, as lively, and as permanent a pleasure as any of its inhabitants could derive from the most beautiful natural outlook.

The grounds of none of the houses illustrated herewith have been submitted to a sufficient architectural and landscape treatment; but one has only to compare the house of Mr. Chas. King with that of the Misses Colvin in order to appreciate how much is gained even by a very little landscape treatment. Mr. King's house, in itself a very delightful building, is lost in the prairie, and will never look at its best without an elaborate system of planting and enclosure. The house of the Misses Colvin has the enormous advantage of the immediate proximity of many very beautiful trees, in relation to which the house is well scaled, and which provide for the building without any artificial planting an effective frame of foliage. Furthermore, even the little terrace on the front of the building, inadequate as it is, and much as it needs architectural definition, affords one some idea of the value of a partly formal treatment of the immediate surroundings of a country house. In no other way can the transition be properly made from the geometrical rigidity of a building to the miscellaneous and haphazard features of its natural surroundings.

Once we abstract it from its setting, the effect of Mr. Charles King's house is very charming. It indicates an attention to the purely formal qualities of design which is rarely found in the West, while at the same time it affords to our sense pleasanter associations than would an example of a more picturesque style. The slant and height of the roof is admirably proportioned to the height of the building, and the openings, with some exceptions which have been obviously dictated by convenience, are most judiciously arranged and spaced. Another novel and excellent feature is the sheathing on the exterior walls, the lines of which are much better spaced than they would be in case ordinary clap-boarding had been used. But one of the greatest merits which a house designed in this way possesses is that it is tied down so perfectly to its site. Such a building, even when deposited upon a flat and open stretch of country, can by proper enclosure and planting, be made completely and impressively appropriate to its surroundings. It is suggestive to our mind of the very best tradition of landscape architecture, the tradition of the Italian villa modified by characteristics partly derived from the later carpenter's version of the Renaissance and partly from American necessities and condition. It is the tradition which is best represented in the East by Mr. Chas. A. Platt, and which, we are glad to observe, is also finding its adherents in the West.

The Colvin house possesses much the same characteristics and merits as that of Mr. King. It embodies a similar tradition; but, inasmuch as it is a brick rather than a frame or plaster building, the Georgian infusion is more conspicuous. It is, however, a somewhat sober example of the style, and would have been improved rather than the reverse by a decidedly livelier treatment. A house which is more Georgian than anything else needs for its full effect a good deal of well-designed detail to relieve a native tendency in the style towards attenuation. There is nothing attenuated about the Colvin house. It is too honest and substantial a piece of design for that. But it is, perhaps, somewhat too severe; and its severity can only be relieved at this date by imparting a livelier and more interesting air to the grounds near the house.

The dwelling of Mr. Bradley is a less



FIG. 15.—HALL IN THE BRADLEY HOUSE. Howard Shaw, Architect.
(Photo by H. Fuermann.)
Lake Forest, Ill.



FIG. 16.—DINING-ROOM IN THE BRADLEY HOUSE.
(Photo by H. Fuermann.)

Lake Forest, Ill. Howard Shaw, Architect.

expensive structure than those already described; but its greater modesty does not diminish its interest. It is a house, with something of an English atmosphere about it, pretty well shut in by encircling trees, and much more private and secluded than is ordinarily the case with American houses. The design harmonizes very well with the character of the surroundings. The first story is broken by an enclosed porch, which must be very convenient in winter as well as in summer, and which is also an effective architectural feature. The lattices placed on the shingled walls on both sides of the porch is an excellent feature of the design, and will become still more interesting when the vines are full grown. The second story is occupied almost entirely by windows, but the black line of the timber which separates it from the story below and the very definite line of the roof above counteract the disruptive effect of the multiplicity of openings. Moreover, the two ends of the house are more solidly treated, and measurably strengthen a front which otherwise would be cut up too much by the voids. Altogether this is an extremely attractive residence. An architect who can put to such good use means which must have been slender, if not insufficient, has achieved a very unusual result. Perhaps the worst criticism which can be passed upon an architect is that he has spent a great deal of money in order to construct a mediocre, commonplace, or vulgar building, and conversely the ability to spend comparatively small amounts of money well is both a very rare and a very praiseworthy characteristic. Mr. Shaw's latest designs justify the promise of those which preceded them, and with the larger opportunities which are sure to come he is likely to succeed still more decisively.

A. C. David.



LIVING-ROOM IN THE BRADLEY HOUSE.

Lake Forest, Ill. Howard Shaw, Architect.

Parisian Doorways of the Eighteenth Century

WITH NOTES
BY
RUSSELL STURGIS



PLATE I.

It is proposed to deal with the eighteenth century decoration which remains in detached fragments in so many of the old streets of Paris. And first, a series of doorways will be given, concerning the exact dates of which our well-instructed readers are invited to give their views. For if there is anybody in New York who can tell within ten years the date of a given piece of combined architecture and sculpture of somewhat Rococo appearance, when it is set before him, that historical scholar should be dragged to light and made to give up the knowledge which is in him. And, because the first thing that strikes one as he approaches a high building is the fronton, let our studies in the Style Louis Quinze begin with this pediment which still remained a year or two ago on a tall house in the Boulevard Henri IV., a broad street which has been cut through one of the oldest and least altered sections of Paris—that quarter which lies between the Ile Saint-Louis and the Place de la Bastile. The reader will note that some help is afforded him here, for the date (1730), of unmistakably original provenience, is carved upon a little tablet high up in the point of the pediment, and above the large cartouche which had been prepared evidently for the armorial bearings of the owner, but never put to service.

The reader is begged to notice one or two refinements in this apparently commonplace bit of architecture. In the first place, at the bottom of the photograph see the carefully sculptured heads which form the keystones of the story below, and the very delicate modillions, two to each window; it is a matter of regret that the photograph does not show any one of these modillions in a different perspective—a little from the side; but that comes of the view taken from a great distance, apparently by a telephotographic lens. Another interesting thing is the large cartouche above-named, perfectly regular in its shape, the two sides the counterparts of each other; a regularity which is carried into the scroll ornamentation, and the great bouquet of natural-looking flowers on either side. Then the reader may note the little bosses of sculpture which fill the uppermost corners of the panels between the windows in the top story. In every such case there is room for doubt as to whether such design is to be praised for its delicate thoroughness, putting ornament wherever ornament seems due, or to be criticised less favorably for a possible waste of material—for why should delicate carving be put fifty feet above the street? We are not supposed to design for the benefit of our opposite neighbors.



PLATE II.

The first doorway that we consider this month is not a porte cochère. For once the rule, general for Paris, gives way to local convenience, and as the house, No. 25 rue Charlemagne, is small and with a shallow court-yard, there is no attempt at providing a driveway. "Carriage customers," if any there be, stop in the street and descend from their vehicles. We shall find such foot-passenger doorways in abundance, opening in the façades on the courts of public and private houses; but they are few in the street-fronts of stately buildings. Especially to be enjoyed, here, is the simple and restrained belting course, consisting of a cornice and a group of mouldings beneath its drip, which mouldings stop against the consols which seem to support that slightly projecting member. The cornice mitres and returns two feet or so at a point just beyond the water-leader on the left, and the whole door-piece is treated as a kind of ressaut.



PLATE III.

This excellent door-piece opens on the rue de Sévigné and is therefore not far from the building which furnishes our frontispiece. The rue de Sévigné is a short street, so named because the famous letter-writer of Louis Fourteenth's court lived in the building, which is now called Hôtel Carnavalet, which fronts upon it. The most interesting porte cochère which forms No. 29 of the little street, has a breaking-out of the string-course of precisely the same fashion as that which we noted in the door on the rue Charlemagne. But here a pediment is built upon the string-course—a pediment which marks the doorway, but is sure to interfere when the inhabitants of that premier étage wish to look out of a window and up and down the street. It is interesting to compare that fronton with the one given in Plate I., because here is a similar piece of realism in the sculptured leafage. This leafage here represents palm branches and oak leaves, and may be thought symbolical, but this does not take away from the naturalistic look of the leafage itself. The ciphers on the stone, and the wooden tablet, are made up of the letters M. P. L.; but the order of the letters cannot be fixed.



PLATE IV.

This fourth plate must be of an epoch a little later than the doorways referred to in Plates II. and III. It is the porte cochère of one of those old houses which still stand almost unchanged on the rue du Bac, the old street on the south side of the Seine, to which there once led from the northern shore a rope ferry (un bac) now replaced by the Pont Royal. The quarter is transmogrified except as here and there a group of old houses has resisted change, but this portal, with all its sculptures in stone and in wood, belongs to the reign of Louis XV., and the ear-mark of that age is upon it. Plain and even bare architecture alternating with highly wrought sculpture of realistic treatment, if highly fantastical in its meaning, that would seem to be as fair a description as one can offer of such details as this. The quivered and kilted nymphs who appear in the oval panels of the doors are not of Diana's following—they are "salvage maidens," as an English herald would call them, girls from the wilds of America. Never mind the absurd details—what did a Parisian sculptor of 1725 know of Indian maidens!

The house is called the Hôtel du Pin, but the family history might be hard to trace.



PLATE V.

The style of Louis XV. was well established when our fourth doorway was put in hand. This porte cochère is at No. 60 rue de Turenne, a street in that same far eastern quarter of Paris with which we have dealt already. It runs north and south from a point on the rue Saint-Antoine, close to the famous Place des Vosges (with which we shall have to deal by and by), to the Temple, and into it opens that rue Saint-Claude, in which Cagliostro lived and played his pliskies. But the old house in the rue de Turenne is identified with no less a personage than the Grand Veneur de France; though the latest writer on the streets of Paris, Marquis de Rochegude, speaks of the house as having been that of the Chancellor Boucherat, soon after its completion; that is, in 1713.

One cannot but suspect the pediment and the tablet above the keystone of having been quite newly scraped and cleaned of their former decorations—and indeed, the house was occupied by some religious community until a recent date, and the sisters evidently took pains to clear away mundane adornments.



PLATE VI.

Plate VI. is another doorway in the rue du Bac, and here, as the heavy walnut folds of the door are fast shut, the minute and delicate sculpture can be well understood. Anyone with a prejudice against these late and decadent styles, who has gone to France to live for awhile, will have something to report of a gradual change of mind which came over him as he saw what serious and well-intentioned sculpture was put upon eighteenth century buildings and furniture. The carving is always worked in the solid wood, and it is done with the artist's best energies, however trivial may seem the general design. And even the

(Continued on page 131.)



PLATE VII.

Our sixth doorway is Plate VII., in the rue du Temple, far away to the north, and the house is known as the Hôtel Montholon, though this is a recent name dating only from the time of the great revolution. The house itself existed already in 1650; but this doorway is not of that finer epoch. The details given in our last preceding plate, the great cove carried round the arch and along both abutments to the ground, and emphasized by the

(Continued on page 131.)



PLATE VIII.

Apparently this doorway, which belongs to a building called now Hotel Garizot, is the interior opening of the voûte leading from the doorway shown in our Plate V. The short driveway between the court and the street points to a curious disposition, with only one very shallow room between the opposite windows. It is probable that the street at that point is so narrow that one dare not trust to the light from that quarter for the sole illumination of a room of any size. The slender garde-fous of the windows are of the epoch, as is evident. These light railings are apt to be kept in good order, painted and cleaned, even by otherwise careless tenants, because life depends upon them. Children are allowed to go freely to such windows as these, even though the sill may be close to the floor; they lean their elbows on the railing and enjoy the open air and the sight of what is going on below.

(Continued from Plate VI., page 129.)

design bears close examination better than it bears the sidelong glance of the hasty passer. Those helmets, badly enough combined with the corners of a panelled frame, are wrought with all their relief decoration and with their crests of varied pattern most spirited and effective in composition. The warrior in the left-hand oval has a dragon cresting his helmet, and this motive is represented in one of those decorative casques immediately below him. In fact, the workmanship is better than the meaning deserves, for it is hardly worth our while to ask who is the geographically-minded lady in the right-hand oval, or who the warrior seated on flags, bows and arrows, and other implements of war. And certainly no one is to be blamed who says he is tired of the preposterous trophies, with Amazonian shields, quivers, and fluttering ribbons.

(Continued from Plate VII., page 130.)

carefully-cut rustication of every course, is of doubtful propriety enough, but what are we to think of such an abomination as the disappearing of a similar though somewhat smaller cove in the jamb of either side? Nor is it possible to believe that this has been an alteration. A doorway as high as this could hardly have been made only four feet wide—and that is what it would have come to had the cove been carried down along the two jambs. But at the top of the picture are some very attractive things. There is a splendid wrought-iron balcony, or rather garde-fou, and smaller ones exist on either side of the epoch; and, immediately below it, the dignified head of a magnificent bearded warrior gives us about the best sculptured keystone that we can find.



PLATE IX.

Plate IX. is a doorway with a very interesting balcony above it, and with an elabrate cipher, A. L. S.—the L. and the S. being twice repeated—in the fanlight under the arch. There is also a splendid wrought-iron balcony-railing above; but the brackets which carry the stone slab itself seem to be of later work—they are of nineteenth century hammering, as is most probable. The carved head with very realistic branches of leafage fixes the date of the building itself as late as 1750, and there is nothing in the woodwork of the door and the filling of the arch to contradict this late date—probably all is contemporaneous. This porte cochère belongs to the house No. 20 Quai de Béthune, which is the southeaterly river front of the Ile Saint-Louis; and so it is near to the splendid Hotel Lambert, which will come in another chapter of this study; and to the fine late church Saint-Louis-en-l'Ile.



PLATE X.

This doorway is interesting as being not a porte cochère, but a single doorway for foot passengers, though on the street. It is surmounted by a most attractive window with sculptured torches at the sides and nude cherubs (such children as the Italians call putti) perched upon the arch of the window. It is probable that this desire to cap the actual doorway with an elaborate window-piece forming part of the same composition came of the near neighborhood of those larger doorways which are arranged for carriage entrances. This designer, not having the width nor the height of a carriage door, has felt that he must give height and magnificence, in a factitious way, and this is how he went to work. The house is used now as a presbytère, that is to say, the parsonage, of the church of S. Merri, which stands in your way as you go northward from the river and from the Tour St. Jacques, along the rue Saint-Martin. This is a fascinating late-Gothic church; one of the most precious treasures of old Paris.



PLATE XI.

For this month our studies in late French neo-classic architecture will close with an admirable balcony in the rue François Miron; an old street near the Hotel de Ville. This house, No. 82, is said to be the former residence of the President Hénault, who died in 1770; student and courtier, philosopher and bel-esprit. The splendid balcony is easy to understand in all its details, and even the wrought-iron bars of the railing above look solid instead of resembling mere spider lines. One cannot but regret the forlorn head which is carved upon the keystone of the window arch in the middle and serves also as one of the supports to the balcony. Why that wretched, woe-begone countenance is put in so prominent a place, probably the designer himself could not have told you. The other corbels of the balcony are intelligent enough, though one suspects an undue economy of means at that point—the execution of the carving in this instance is not equal to its primary conception. The heads which form the keystones of the arches—the entresol windows—at right and left are insignificant. As for the foolish little trophies of bows, quivers and crowns of feathers, these are connected with that same childish fancy for the newly-studied savages of North America, and with the fantastical ideas of Europe with regard to them, all of which there was question when we considered Plate IV. and Plate VI. above.



THE PUBLIC SCHOOL.

Naugatuck, Conn. McKim, Mead & White, Architects.

Photo by A. Patzig.

An Architectural Oasis

In countries such as France and England, with authoritative and widely prevalent national standards of taste, the buildings erected, even in the smaller towns and cities, are stamped with a certain character. They may not be beautiful or interesting, but they conform to recognized ideas, and, consequently, they are at least respectable. But in a loosely knit country such as the United States, in which the best aesthetic standards have no authority outside of the largest cities, the buildings which are erected in the small towns are, except in rare instances, the work of local designers, and are stamped with crude provincial characteristics. There are, however, certain exceptions to this rule; and a number of these exceptions are to be found in the smaller manufacturing towns of New England. In some of these towns the local manufacturing industries are owned or controlled by well-to-do and public-spirited gentlemen, who have not only built houses for themselves designed by the very best architects of the day, but have exercised their influence to obtain for their towns a better class of public buildings. To mention only a few instances, something of this kind has been done by the Cheney family at South Manchester, Conn.; by the Maxwell family at Rockville, Conn., and, as may be seen from the accompanying illustrations, by Mr. J. H. Whittemore and Mr. Harris Whittemore at Naugatuck, Conn.

Naugatuck itself does not differ essentially from a score of manufacturing towns of the same size. It injoys, indeed, an unusually beautiful location. The valley of the Naugatuck River opens out in this vicinity, and the hills rise gently to considerable heights on both sides. The business section of the town—that is, the railway station, the shops and the factories—are situated on or just above the river level, while the public square and the chief residential streets have been laid out on a plateau, situated some distance back from the river and at a somewhat higher level. Back of this plateau the hills rise still more sharply to a height of several hundred feet, and on this ridge many of Naugatuck's thriftiest citizens live. The outlook across the valley to the hills on the other side is, apart from the artificial disfigurements, very beautiful, and one can imagine a town built upon them and upon the plateau beneath, which would have added



THE HIGH SCHOOL.

Naugatuck, Conn. Photo by A. Patzig. McKim, Mead & White, Architects.



THE HIGH SCHOOL FROM THE PUBLIC SQUARE.

to the beauty of these surroundings rather than subtracted from them. A better site for a picturesque hill town would have been difficult to find; but it is unnecessary to add that practically nothing has been done to take advantage of these opportunities. Naugatuck, so far as it is a home-made product, is, from the point of view of good looks, a depressing and a squalid place. It lacks even the minor virtue of neatness and tidiness, and there is no suggestion about it of the charm that still pervades some of the older New England agricultural towns, with their elm-shaded main streets lined by respectable colonial and neo-classic houses. The one evidence of good civic or architectural manners which Naugatuck possesses is a public square, which occupies an area of two or three acres on the plateau above the river and below the heights; and it was inevitable that any attempt to improve the appearance of the town should begin by putting this square to the best possible use.

Fortunately, there was a gentleman interested in the industries of Naugatuck and resident in the town, who appreciated the desirability of raising its architectural standard, and who knew whom to call to his assistance. Beginning many years ago, the erection was begun in Naugatuck of a number of public buildings, the design of which was entrusted to Messrs. McKim, Mead & White; and this work has been continued with some intermissions to the present day. During these fifteen years there have been erected in Naugatuck from plans by this firm a public library, a public school, a fountain, a bank building, a high school, a Congregational church, and two private residences—one for Mr. J. H. and one for Mr. Harris Whittemore. Moreover,



THE PUBLIC LIBRARY.
Naugatuck, Conn. McKim, Mead & White, Architects.
Photo by A. Patzig.



THE CONGREGATIONAL CHURCH.

Naugatuck, Conn. McKim, Mead & White, Architects.

Photo by A. Patzig.



INTERIOR OF THE CONGREGATIONAL CHURCH.
Photo. by A. Patzig. McKim, Mead & White, Architects.
Norwalk, Conn.

the same architects have also designed some farm buildings at Middlebury, in the vicinity of Naugatuck, and a hall and business block at Waterbury, and the result is, that Naugatuck and its vicinity contains probably a larger number of buildings designed by McKim, Mead & White than any place in the country, with the unimportant exception of New York.

changes which have taken place during the interval of its methods of design. Compare, for instance, the public school, the illustration of which is used as a headpiece for this article, with that of the High School. The first of these buildings was erected many years ago, and, compared to the High School, seems like the work of a wholly different firm.



BUILDING OF THE NAUGATUCK NATIONAL BANK.
Naugatuck, Conn. McKim, Mead & White, Architects.
Photo by A. Patzig.

Thus this little town has been changed from an architectural eyesore into a place which, without ceasing to be an eyesore, has become of unusual architectural interest. For not only is it unusual to find so many buildings designed by this firm situated so near each other; but, inasmuch as these buildings have been erected during a period of over fifteen years, they afford some indication of the

Yet both of these buildings are characteristic of that phase of the firm's work, which was dominant at the time of its erection, and a full account of the meaning of the transition from one building to another would carry with it a large fraction of recent American architectural history.

Interesting, however, as are the variations in style and architectural point of



FARM HOUSE OF MR. J. H. WHITTEMORE.
McKim, Mead & White, Architects.
Middlebury, Conn.

view which the different buildings express, it is perhaps a pity that they were not built, or at least planned, all at one time, so that they might have been grouped effectively together. As it is, they are scattered around on three sides of the square, and are not seen in any interesting architectural relation one to another. The High School, for instance, which is the largest building and the one most conspicuously situated, suffers somewhat, because it has been shoved off towards the corner of the square instead of being placed more in the center. The consequence is, that the building fails to obtain the benefit of its conspicuousness. It has been impossible to plan an effective approach from the square, and it is seen in immediate relation to certain frame houses which are, to say the least, wholly incongruous. If it could have been situated on the same axis as the middle of the square, while, at the same time, keeping its present altitude thereabove, it would have put up a very much more impressive appearance. But such a situation was out of the question, because the public school, which had been built many years earlier, blocked the way. The High School remains, none the less, a building which is excellently adapted to its site. It is designed in a bold, large way; and the colonnade which occupies most of the façade is of the greatest assistance in enabling the building to live up to its commanding location.

Another very interesting building is the Congregational church, which also has been completed at a comparatively recent date; and it is interesting for a number of different reasons. In the first place, McKim, Mead & White, in the course of a long and very busy architectural career, have designed singularly few churches. We can recollect at the moment only two others, viz., the Judson Memorial, on Washington Square, in New York City, and the new Presbyterian church for Mr. Parkhurst, on Madison Square. Each of these edifices exhibits very well the high ability of the firm to give a fresh value to certain old forms; and the Congregational church at Naugatuck is pre-eminently an instance of the successful exercise of this faculty. Among all the contemporary versions of the Georgian church, or, if you please, the Colonial meeting-house, we know of none that combines so much originality with so much distinction as the building which is illustrated herewith. The Colonial meeting-house was the homely analogue under American conditions of the English 18th-century Renaissance church, and it betrayed, both in its materials and its details the extremely limited resources of its builders. Moreover, the necessity of economy was rarely in these instances productive of good results, because it prescribed the use of cheap and poor materials and left the buildings bare of appropriate ornament.

The architects of the present edifice have shown what can be done with the Colonial meeting-houses when the necessity of narrow economy is removed. The new version of the old style retains the discreet quality of the original; but it becomes both more monumental and more elegant in its effect. While the more abundant resources have been freely used in making the design of the church an elaborate composition of many varied and costly elements, what was valuable in the architectural tradition of the earlier type has been not merely preserved, but emphasized and improved.

As a matter of strictly architectural design, it may be objected that the tower is large in scale compared to the body of the church, and that the means which have been taken to terminate it in the steeple makes it appear from a distance, as well as hard by, somewhat squat. This objection has some propriety, but it will not do to press it too far. To design an effective tower for a church of this size has been one of the historic difficulties of ecclesiastical architecture; and in this instance the difficulties of a tower of any other size than the one selected are so obvious, that whatever else it would have meant, it would have necessitated a wholly different sort of building. But the existing edifice has so many claims upon one's consideration that it is better to accept the tower as it is than to pay the heavy price that would be required

for its alteration. The building is so good as it stands that its admirers would not care to risk any fundamental changes. The only other criticism that is suggested concerns the intermediate member between the tower and the steeple, the surface of which is broken up into a number of ineffective lines and planes. In other respects, the design is most interesting and satisfactory. It could not have been designed by any firm which lacked the advantage of long practice in the use of Georgian forms, while at the same time it contains certain very effective novelties, particularly in the treatment of the steeple.

The buildings of the public library and that of the national bank do not call for any special comment; but the residence of Mr. Harris Whittemore in Naugatuck and the farm house of Mr. J. H. Whittemore at Middlebury deserve much more attention than such simple buildings usually do. McKim, Mead & White have of late years designed very few inexpensive frame houses. They have naturally preferred to give their time to work which offered more considerable architectural opportunities. But those people who used to like very much some of their earlier informal shingled houses —houses which have been extensively copied ever since—will be pleased to see that this firm can still impart propriety and charm to modest and unpretentious buildings. The two residences illustrated herewith are probably more symmetrical than they would be in case they had been designed twenty years ago; but their symmetry has not made them stiff. Neither do they claim to be anything more than they are. Better examples could not be desired of the benefit which comes from the assignment of comparatively inexpensive jobs to the very best architects.

A. C. David.



THE HOUSE OF MR. HARRIS WHITTEMORE.
Naugatuck, Conn. Photo by A. Patzig. McKim, Mead & White, Architects

The Period of Daikan*

By Zaida Ben-Yusuf. With Illustrations by the Author

When we realize that quite two-thirds of the world's population rely entirely upon charcoal as their sole fuel for all heating and cooking purposes, it seems curious that we Occidentals should experience the slight shock of surprise that is nearly always apparent when we encounter the actual fact of its use. Petroleum has taken its place to a certain extent, of course, but when one considers the immensity of the Russian petroleum fields on the one hand and the uncounted centuries during which these people depended wholly upon charcoal in common with other Europeans and Asiatics, it seems but a trifling space of time since old Marco Polo wrote that Russian petroleum "was not good to eat, but would ignite easily."

Somehow or other we who use mineral coal always call up the question of poisonous fumes from charred wood, forgetting entirely that coal gas is equally dangerous, and that our chimneys are fully counterbalanced by the better ventilated houses or more open-air habits of life to which the people who use charcoal are accustomed. There is great difference in qualities of charcoal, too. The quality and kind of wood used has, of course, its ultimate effect, but perfect combustion depends largely on the skill of the charcoal-burner. In some countries they never seem to have mastered the secret of curing the wood perfectly. Italians are probably the least skilful in this respect, and yet they have plenty of good timber, and the use of charcoal is so general that we find (as a stray example) Genoa, a northern city, practically chimneyless. Japan undoubtedly has the best. It rarely happens that even the cheapest grades throw off smoke. The various qualities are distinguished rather for the size and shape of the pieces, which range from small, irregular "lumps" to the most symmetrical sections of young trees or branches, each one alike in length and thickness.

In Spain charred branches of grape vines are used by those who can afford them, and these I think come nearest to the Japanese perfection, but do not bear full comparison because the sections are only of finger thickness, whereas the Japanese are quite four times thicker, and, of course, require attention or replenishing just so much less often. The Japanese have also perfected beyond all other countries their method of *using* this fuel; that, too, has its important differences, and, unlike those of Russia, Italy, Turkey, etc., their braziers are without covers.

One can hardly consider charcoal adequate comfort in a severe climate, but it has its advantages as well as its picturesque quality. A bath or dressing room may be chilly. A beautiful brazier appropriate in elegance to the character of the room will be carried in, and in five minutes a warm, healthy atmosphere replaces the damp chill of Spring or Autumn. Many an evening I have worked in my dark-room in Japan while a brazier glowed companionably on the floor, its deep red light not the least bit hurtful to the sensitive photographic plates.

Even in warmest weather the damp, draughty corridors and lofty rooms of the old disused palaces and temples made one wonder how the occupants managed to keep warm during the period of cold, and "greater cold" was a thought to cause impulsive shivers. But these things can only be learned by patient questioning and an actual experience of the details. When November came I had my opportunity.

First of all one must get a brazier. To begin with, I purchased one of the very cheapest. A large clay vase

*Greater Cold. (One of the divisions of the Japanese year).



THE HIBACHE OF EARTHENWARE.

partly glazed a pretty blue, costing 12 cents. As a Japanese brazier is deep, of course a bed of some sort is necessary for the charcoal to rest upon. I found that this is always made from the ashes of rice straw, so we sent to the rice shop for eight of the big straw bags which had once been filled with several bushels of rice. These we burned, out in the kitchen yard, and later the servants pulverized the black ashes by rubbing them between their hands until they became fine as powder. Then I was ready for Susuké's lessons in the etiquette of the honorable *Hibache*.

Susuké was one of my maids, middle-aged, and very wise in the old-fashioned ways of her own country, although she could neither read nor write. She had once lived in America, and had adopted a few American ideas along with certain unmentionable garments usually covered by discreet skirts, but proudly exhibited by Susuké upon the slightest provocation to any of her fellow servants or new acquaintances, who thereupon would go away to whisper malicious jealousies to awestruck friends. So Susuké's fame spread, until she had become so important that she wanted $20 a month for wages.

The ashes of all the eight straw bags were only sufficient to fill one Hibache, and they were so ugly and black that I, in my inexperience, felt quite dismayed when I compared them with the fine grey which formed the bed of other people's charcoal; but Susuké assured me that in a few weeks mine could be equally nice if I carefully "worked" the white residue of the burned charcoal into it. A few weeks! That seemed quite too long, so I at once proceeded to burn up charcoal as fast as the size of my earthen Hibache permitted, indeed, quite too fast, for suddenly the clay cracked, and I had received lesson number two.



BAGS OF RICE STRAW.

Very poor people huddle over two or three lumps of burning coals, surely doing no more than keep the under side of their hands warm, and so, I see now why they can use these frail earthen vases! If they can afford a better, and

in the end much cheaper sort, they buy those made of unpainted wood lined with metal.

At this stage Susuké took compassion on my impatience, and brought me some of her own nice grey ashes for another Hibache, and also brought me white powder to mix with those in the clay one; this latter helped things along but disturbed my pride by its artificial aid. I wanted my own nice ashes, that I had spent hours stirring and patting into color, meanwhile inhaling that delicious odor of well-cured wood that never smokes, or sputters an unwelcome shower of cindery sparks.

Now all this stirring of ashes and building of fires must be done with iron *Hashi*,* never tongs; but by that time I was at least no novice with these little rods, and well able to ignore this detail for the more important features of my next lesson, when Susuké showed me how to build a precise, well-mannered Fuji with miniature logs of charcoal. One must build slowly, so that each piece balances, and will not come tumbling down when the structure is nearly completed, or half burned through, and so spoil all the neatly raked ashes that a final twirl of the little brass rake sets into such adorable tiny furrows.

During my excited efforts to achieve grey ashes in record time Susuké had been searching all the shops for a bronze Hibache worthy of my graduation to Hibache tending as a fine art, and the pretty room it was to keep warm. She hunted and hunted, for, alas! this aesthetic profession is dying out, and New Japan of the prosperous class prefers a kerosene stove. Now these stoves are a delusion. I tried one.



BURNING THE BAGS OF RICE STRAW.

*Chopsticks.



THE BRONZE HIBACHE.

It was of the tall, odorless, etc., etc., sort that uses up about half a gallon of oil a day. It heated the room, of course, but I was obliged to hide the fearful thing behind screens, and the air soon became so vitiated that headaches were sure to follow, so it was banished —to somewhere at the other end of the house, where they had less time to play with charcoal Fuji's,* for Susuké had come home with welcome news of three newly discovered brazeries, and I might take my choice. All of them were in curio shops, destined perhaps to be used as Jardiniers by some unthinking foreigner, and never again to feel the cosy warmth of odorous wood permeating the thick bed of well-sifted ashes. I chose a heavy bronze whose fine classic shape was a reminder of one used in an old monastery where I had been a recent visitor. If only it could speak! I wonder if it would be grateful for its rescue from a desecrating fate. And what strange tales it could reveal of unfamiliar things and people. What sort of thoughts filled the minds of those many, who, in long years, season after season, had idly stirred the white ashes into grey—if only we could know just a little! of what (I) the Selfish One, said to (you) the Honorable Side; of the parrying duel of compliments, and the strangely worded phrases set in lines of thought so utterly different to those of our Western world.

Oh well, it's no great matter if one piles up a big Fuji in this Hibache, for it is made for those who can have much charcoal and many fires.

I found that the temperature of my ten-mat room was exactly the same with one well-kept charcoal brazier as it had been with the banished oil stove, and it appears that this is the scale upon which the houses of the well-to-do were formerly heated, and are still, in towns where the people are not too anxious to adopt new ideas. One Hibache to every eight mats* in a big castle meant many servants, but that was of no importance, for servants meant almost nothing, except that they were part of a great family. Even in these days I know of one hotel patronized by foreigners where the women servants get exactly 1 yen a month for wages, and besides must turn over a third of their meagre gratuities to the proprietor.

There are various types of bronze Hibache, some especially intended for the purpose of heating water for tea making; in these one uses small lumps of charcoal rather than the selected sticks which are used with such ornamental effect as I have already described. Then there are wooden stands richly decorated with black and gold lacquer, and shaped like a table with a hole in the middle, into which is set the bronze or silver dish for the charcoal. These, of course, may not be used for such large fires as a plain bronze one; but they are often quite beautiful, and certainly are expensive.

Besides these there are innumerable quaint devices of earthenware or bronze for warming hands, for heating the water for tea at picnics, to wear inside the *Obi* over the stomach, or for keeping warm while travelling; and then again at quite another extreme are the plain earthen fireplaces with metal covers used to keep the beds of the poor people warm during winter nights, for, after all, there are two occasions when these unfortunate ones may be comfortably warm—in the bath and, at night, between their futons.

Zaida Ben-Yusuf.

*The similarity in form to their sacred mountain naturally suggests this name to the Japanese.

*Each mat measures 3 x 6 feet. The size of a room is always described by the number of mats it contains.

NOTES & COMMENTS

THE PAPER MILLS BUILDING, CHICAGO

That interesting subject—that hope for the artistic future — that approach to nature and the wisdom taught of necessity, the architecture of the factory and warehouse — finds a new elucidation in a building by Mr. George L. Harvey in Chicago. Let us call it by the name which is in relief letters above the principal windows—The Paper Mills Company Building. It is shown in Fig. 1.

In this case the upright piers are, to all appearance, simply solid, close-laid masonry of hard bricks; and the two corner piers are probably 14 feet 8 inches in width, and are pierced with windows of five feet or more in width. Then the horizontals, except in those corner piers, are of iron girder construction for the facings of six floors; and it is not until we reach the narrow triangular strip under the first string-course that bricks appear in the horizontal construction of the central mass. This string-course is seen not to be perfectly horizontal, but rises in the middle with the evident purpose of forming and intensifying the upward spring of the members immediately above it; for the eighth tier of windows is arranged in what might be called an attic, and the low segmental arch which tops the windows of the middle cluster is allowed to give more light to the interior by the fact that the roof rises there—a double-pitched roof with its ridge on the axis of the building. This double-pitched roof, then, is explained, and attention is called to it, by the gable which finishes the face wall; and all that mass of walling above the segmental arch is of brick, as well as the small piers which divide up the space below it and separate one from another. These explanations are given because the half-tone does not always display the minutiae as well as it should. The student will see, however, that there is no pretence at masonry construction above the window openings in the corner piers. We will assume that an iron lintel is put in to span each opening, and that a brick wall is simply carried up on the flanges thereof, without pretence at any necessity for a lintel or a flat arch. The end wall, that which we used to call in New York the gable-wall, is striped with bricks in two colors, and the different brickwork of the front is seen to be toothed at its junction with this end wall in a way which might have made a very pretty architectural effect had it been carried further. But, as the lot with its shanties next door is "To lease for 99 years," it is quite clear that this pretty blind wall (and how pretty a blind wall may be when laid up with brickwork of good color!) will soon be masked by another and very possibly much higher building, so that labor upon even such a simple ornament would have been thrown away.

There are many ways in which a careful touch and some deliberation of thought are made manifest, in this design. One likes extremely that topping of the door on either side, in the corner pier, with a flat arch of cut-stone voussoirs, and although the little simulacrum of a pediment in vexatious, yet one can understand the feeling which dictates it. That low-pitched gable with the horizontal line of the door-head, and below that, again, the double horizontal line made by that curious stone slab which is built in to separate the doorway proper from the fanlight, all together give, most visibly, a motive of design very carefully thought out. Nor is it easy to say what one would do to modify it. The accepted architectural forms are out of place in such a structure, and yet the need was felt of some significant detail just there.

R. S.

THE WILLIAMS' BUILDING, NEW YORK

In such a case as the above, the ending of the front in a low gable corresponding with a two-pitched roof behind seems an eminently sensible way of proceeding. There was occasion, in writing about some New York warehouse buildings about two years ago



FIG. 1.—THE PAPER MILLS BUILDING.

Chicago, Ill. Geo. L. Harvey, Architect.



FIG. 2.—WAREHOUSE OF I. T. WILLIAMS & SONS.
West 25th Street, New York City.

(see The Architectural Record for February, 1904) to deal with a similar front on West Twenty-fifth Street. It was shown then (Fig. 10, facing p. 123) in rather steep perspective; and therefore it has seemed well to reproduce it. It is given here, Fig. 2, and there is seen good reason for preferring this stepped gable to the slopes, the raking coping of the Chicago example. That wonderful design of George Babb, the New York Life Insurance Company's building at St. Paul, Minnesota, deals in this way with a low-pitched gable, made spirited by stepping its outline. It is a feature whose charm I have always felt strongly, and which seems as effective in this case as in the more elaborate instance. That New York front, an annex to the warehouse of I. T. Williams and Company, will be found even more effective, seen as it is seen now from a point far to the south, than it appeared before. What a sensible thing it was to pass from the three great arches which were what the ground floor needed, to the rows of uniform windows which were required above, and then to an attic divided from the wall below by a string-course of cast brick—a kind of entablature with dentils and a rather exaggerated fret—all this serving but as a preparation for the most effective sky-line. The Chicago building is more frankly modern; the architect has trusted his iron work for the actual window-heads and has thereby secured the maximum of light for the interior; he has carried his square heads down to the ground floor windows, where, indeed, they are the most needed; he had to prepare a building with lofts to let to different parties, and tenants had to be tempted by all the inducements known to those who have buildings from which an income is expected. But still, the old instincts and the associations of centuries are not to be ignored, and to see a front frankly built of brick, solid and massive and with brick arches, is to see something which is more architectural. So it is as yet and so it may continue to be—we cannot be sure! Certainly, no designer has built anything in iron, or partly in iron, which can interest us as will one built in simple masonry and in old-fashioned ways. In the New York building the projecting key-blocks of the segmental arches seem to be a mistake. One would have a simple curve of the extrados rather, and if the whole archivolt could have been laid up in patterns, as in the case of the large arches of the ground story, that might have been an interesting thing to have done. It would have been expensive enough—there is no doubt of that—and a lover of simple brick-work would have been pleased, perhaps, to see the wall left smooth, and the elaborate light and shade at the lower string-course and the archivolts near repeated only in the final string-course below the attic. R. S.

THE CHAPIN & GORE BUILDING, CHICAGO

We come to a very modern building indeed, in considering the Chicago front seen in Fig. 3. This we will call the Chapin & Gore Building, from the firm name displayed on the ground floor and immediately above, though there are at least three other occupants whose signs appear on the glass of the windows, and much of the glass is still smeared with that chalky preparation which indicates that Here is an office not yet occupied. The front is of a brown "paving brick," the two square doorways and the high base course at the extreme right are of polished red granite. The fanciful entrance on the right needs special mention.

This is a design by Mr. Richard E. Schmidt, whose work has been dealt with in the Record several times during the last few years. Fig. 4 gives a much enlarged view of the small shop-front on the extreme right of the façade. The whole space beyond and to the right of the square doorway which leads into the stairway hall, and which has in minute letters above the door the words "Building Entrance," is occupied by the showy frontispiece of the Nepeenauk Bar. An elaborate design in terra cotta forms the head of the door-piece proper, and the immense fanlight above with the side lights and the very showy bronze lantern which half obscures one of them, are all wrought into a very clever design based upon no tradition whatever—as natural and independent of precedent as the greatest stickler for modern independence could wish. Of bronze are also the door-frame and sill, and the sign, "Bar."

It has seemed well to call attention to this little detail in the first instance, almost, because that inclination to use relief ornament of quite untraditional character is seen all over the front. One cannot approve the broken architraves of the large windows in the second tier. Whence comes that fancy, which displays itself once in a while, for carrying mouldings along two or three sides of an opening when they cannot be continued throughout? If, indeed, the mould-



FIG. 3.—THE CHAPIN & GORE BUILDING.

Chicago, Ill. Richard E. Schmidt, Architect.



FIG. 4.—ENTRANCE TO BAR IN THE CHAPIN & GORE BUILDING.

Chicago, Ill. Richard E. Schmidt, Architect.

ings of jamb and head are allowed to stop against the sill, there is a reason, obvious enough, for the enclosing of three sides of square window or doorway; but why stop to enclose all four sides of the opening with your moulded casing only to cut through it at top and at bottom? It is hard to follow the reasoning which has led to such a conclusion, nor is the resulting effect particularly attractive.

It was, however, a good thought to separate the ground story from the uppermost group of stories by the broad belting of unusual design which constitutes the front of the second and third stories. The signs on the glass show that those two stories are occupied by the same firm which holds also the ground floor. It was no doubt because of this, and in order to separate the rooms occupied by the principal tenants from all the others in external treatment of the façade, that this design took shape. And, if we take that belt of brickwork as a merely ornamental facing, it is effective enough and one is not worried by the strange forms of the window-casing. There has been a curious architectural treatment of the piers above, those which enclose five stories of the building. The jamb-face of each is decorated with a pilaster, and unfortunately this pilaster makes no pretence at carrying anything; its capital mitres with the window-sill behind and that is all, and the student is left wondering whether he can accept that returning of the window-sill outward on either end for no purpose in the world except to form the capital of that pilaster. From whichever side you approach the question, the answer seems hard to find. And then there does remain in the mind of the student of architecture that bit of tradition which bids him ask of all ornamental adjuncts or modifications of surface, or purely decorative detail which is not absolute sculpture—that it should in some way be called for—for some necessity should seem, at least, to dictate its presence, and why, he asks, why the pilasters? R. S.

BOSTON SUGGESTIONS

The Metropolitan Improvement League of Boston, of whose beginning there was mention here a year ago, has held its first annual meeting. Several matters of special interest were brought up by the committees. It was reported that Congress was likely this winter to make the promised appropriation for the new custom house and that it was, therefore, important to create a public demand that there should be acquired sufficient room to set off properly the new building. A suggestion was made that if the present structure were cleared away and the neighboring end of the old State Street block removed, with the end of the brick block on Central Street, the new custom house could be built farther back toward the water front than the old one, and located on the line of Commercial Street and of the little park now in front of the Chamber of Commerce Building. This, the committee thought, would give an effective site. It was then suggested that if the main pavilion were put between State and Central streets, the wings on either side, across these streets, could be connected with it by lofty arches. It was pointed out that the tall arch on State Street in particular would give a very interesting architectural accent to the main financial thoroughfare of the city. Another matter brought up was the location for the memorial to Mayor Collins, for which, it will be remembered, contributions continued to pour in some time after the $25,000 limit was reached. A handsome gate opposite West Street, on the Tremont Street mall of the Common, was advocated. This would certainly have the merit of conspicuousness, which is a matter of some importance in a civic memorial. As far as Tremont Street is concerned, it would also add considerably to the effectiveness of this part of the street, now weak on the Common side—the low entrances to the Subway, the wide expanse of flagging, the informality of the Common's border, giving to the street an appearance of petering out. On the other hand, one feels a natural repugnance to anything that will seem to shut away the Common, of which a chief charm, in a civic sense, is the naturalness with which it enters into the city plan and the freedom with which its paths are used as thoroughfares. To be successful here, the memorial must be a gate that, far from suggesting exclusion, invites only to entrance. A third interesting subject for discussion was found in the report of a committee that had been at work to secure a less hideous form of elevated railroad construction. It was pointed out that in Berlin the elevated road is so built as practically to eliminate the noise of the trains, and that it forms a handsome, even an artistic, feature in the upbuilding of the streets rather than a defacing one. In fact, it was said by the committee that abuters on the road, instead of suing for damages, are assessed for betterments.

SAN FRANCISCO POST OFFICE.

The opening of the new post office in San Francisco was observed with the ceremony due to a local event so notable and so long postponed. In the far West they call it "the handsomest post office building in the United States and one of the finest public buildings in the world." But the familiar old story is beginning to be told of this as of nearly all the other post office buildings; it is not worthily located. Even at the opening exercises—again a pathetically familiar condition—one of the speakers tried earnestly to start a movement to rectify, as far as now is possible, the mistake of its site. Located at some distance to one side of Market Street, the city's principal thoroughfare, he urged that the intervening land be bought and made into a park that would give a proper setting to the structure and appear to bring it into relation with Main Street. If only we could learn to give to the sites of our public buildings a proper civic consideration before the land is bought and the buildings erected!

MUSEUM ARCHITECTURE

Though the Kaiser-Friedrich Museum in Berlin is sufficiently important, in itself, to receive careful attention, its architecture commands rather more interest than usual now, when the erection is being undertaken in Boston of a new building for the Museum of Fine Arts, and when New York is giving particular attention to the future of the Metropolitan Museum. And it probably is true that no museum of such size and magnificence as the Kaiser Friedrich, none so carefully thought out in every particular, has been erected in any European city for many years. Various modern ideas of museum architecture are here embodied and illustrated. A writer in the London "Daily Telegraph," declaring that the building can scarcely excite "enthusiasm" as a work of architecture, says it is yet adapted wellnigh perfectly to its utilitarian purposes and has proved a real structural success in spite of the exceptional difficulties caused by the peculiar shape of the canal enclosed site. There is a monumental staircase at the entrance, set off by a bronze copy of Schlüter's equestrian statue of the Great Elector. In the center of the ground floor, there is a great stone hall, called the Basilica, built and fitted like an Italian church of the sixteenth century with side chapels. These contain, in an approximately correct setting, altar pieces and other examples of ecclesiastical art. Separate sections are occupied by early Christian and Byzantine antiquities, German, Italian work, and so on. In the rooms devoted mainly to paintings, the walls are covered with plush hangings, painted or stencilled so as to simulate Italian velvets and brocades, an earnest though not invariably successful attempt being made to secure just the right pattern and tint. A very good effect is secured too by the insertion, in the openings between the rooms, of monumental doorways, as a rule antique, and in each case belonging to the style and school to which the works in the room belong. This is also a feature of Mrs. Gardner's museum in Boston, and well illustrates the advance from the old idea of a museum as only a storehouse.

TOURISTS INCITE "IMPROVEMENT"

From the foothills of the Rocky Mountains to the Pacific coast—and even thousands of miles beyond, for the new spirit has appeared in Hawaii and Manila—there is in full swing an enthusiastic move for town improvement; not alone for tidying up, but for beautifying and for making the most of the natural opportunities to enhance a community's attractiveness. But the interesting thing about this movement, considering it from the edge of the prairie westward until West is East, is that it finds its most powerful motive in catering to the tourist business. That shows, incidentally, what travelers in our own land we are becoming, and that the trail of the tourist is a vein of gold. But the main point of the phenomenon is its conclusive evidence that, as the champions of better towns and cities have long been claiming, civic art—using the term in the broad sense—pays. A curious expression of the new spirit is to be found in a trip taken a few months ago by the president and directors of the Merchants' Association of San Francisco to Paso Robles, in the middle of California. As is well known, the Merchants' Association of San Francisco is one of the most vigorous and efficient all around "improvement" organizations in the country, and this trip was taken "to carry the gospel of improvement" to the brethren of a weaker organization. At the inevitable banquet, the keynote of the addresses was that the town "should reach out for the tourist business that was flowing by

its doors," and that the way to do this was to hustle for civic beauty. Advertising is well enough, said one speaker, but the best method is to send visitors away so pleased that they will do the advertising. The president of the local improvement club, replying, said it was fully realized that "the modern tourist expects a great deal," and the club, though hampered by lack of funds, had spent $6,000 in a single year, and was fully resolved to do much more and better." This should be in the East something else than amusing. It is interesting and suggestive. Such improvements, to be effective, usually have to begin, by the way, with a fine hotel and its agreeable setting.

A DWELLING OF CONCRETE

It is not too much to say that there has just been completed the most remarkable dwelling in central New York, and probably its most indestructible building. This is the mansion of John H. Osborne, in Auburn—Gordon A. Wright, of Syracuse, the architect. The house is of reinforced concrete throughout, and could not be burned up, nor probably blown up by other than a very exceptional charge. Mr. Osborne, who is one of the oldest residents of the city and whose name is identified with its most prominent industry, has had the courage—his home having twice been ravaged by fire—thus to defy time and calamity in his building, though affliction has left him widowed and childless. The house stands on South Street, the most fashionable residential street of Auburn, in spacious grounds, and directly on the site of the mansion destroyed by fire two years ago. The structure is of an Elizabethan type, with battlemented walls, only the encircling "piazza"—a concrete platform, with a double roof of glass and metal borne on brackets—relieving its fortress aspect. The walls from top to bottom are 20 inches thick, this including, however, above the foundation a four-inch air space. These upper walls consist of four inches of Canandaigua pressed brick on the exterior, then eight inches of building blocks, then the four-inch air space—heated in winter by a line of steam pipe—and a four-inch interior brick wall. The whole interior structure is supported on ten concrete columns, that rise from cellar to roof, supporting the floor platforms. The house was completed without partitions, the division into rooms having been made after all the floors were laid and the roof was on. Each concrete column has its spiral core of twisted steel, and of the floors not only the main beams and lateral cross beams are of "steel concrete," but the floor areas themselves. In all there are more than fifteen tons of twisted steel in the concrete construction of this private house. The roof, which is flat, is covered with asphalt tiles laid on five inches of asphalt felt, well swapped with asphalt between. To avoid the necessity of driving holes through floors or partitions, two shafts three feet square are provided to carry the steam, water and lighting pipes, and various wires, from cellar to attic. From these go, embedded in the cement of the floors, below the tiles, the pipes of each story. The house is furnished throughout with double windows, which slide in summer into pockets in the four-inch air shaft of the walls. The interior partitions are of plaster board set in grooves of channel steel, and the decorations are put directly upon the plaster board. The floors have encaustic tiles above the concrete, except in the kitchen where cork carpet is used. Bordering the tiles are bases of white, or Sienna, or black and gold marble. No wooden lath are used anywhere, the ceilings having been put on wire netting, and the only combustible materials used are the window and door frames and the wainscoting of the dining room and lower floor. On that floor the wood is mahogany. The brick of the exterior walls is relieved by sills and caps and ornamental beltings of "made" stone, the whole house forming an enduring mile post in the modern use of concrete.

THE ARCHITECTURAL LEAGUE OF AMERICA

The seventh annual convention of the Architectural League of America will be held in New York on Jan. 31st, 1906, and it promises to be a most successful and interesting event. The Architectural League differs from the American Institute of Architects in that it is less distinctively merely a professional organization. Its membership includes not only the architectural clubs of the most important cities in the Union, but also the National Sculpture Society and the National Society of Mural Painters. It stands, consequently, for architecture in its relation to the allied arts, and it appeals to people who are interested in good architecture from any point of view. The membership of the several subsidiary associations includes many people who, while not being practicing architects, are

playing an important part in the national movement in the direction of higher architectural standards; and these people contribute largely to the body of approving and energetic public opinion, which is essential to the architectural development of the United States. It follows that the work of the League is no less important than the work of the Institute, and that the two organizations are traveling to much the same goal by different roads.

The convention will be called to order at ten o'clock on Wednesday, Jan. 31st, at the building of the Fine Arts Society, No. 215 West 57th Street. The morning will be devoted to routine business, after which a luncheon and entertainment will be given to the delegates by the National Sculpture Society. At the luncheon informal talks will be given by several different authorities, and it will be followed by excursions to different parts of the city, in which sculpture may be seen in its proper architectural setting. On Thursday, February 1st, after the usual business session in the morning, the National Society of Mural Painters will entertain the delegates at luncheon, and in the evening Prof. A. D. F. Hamlin will deliver an address upon the relation of sculpture and painting to architecture from an historical standpoint. On Friday there will be another business session, and the convention will be closed by a dinner in the evening to celebrate the beginning of the annual exhibition of the Architectural League of New York. It will be seen that this programme emphasizes the fact that the League stands particularly for the relation of architecture to the allied arts. The headquarters of the delegates will be at the Hotel Astor, Broadway and 44th Street, and the Hotel Spalding, No. 127 West 43d Street.

The Architectural League of America, whose membership has recently been increased by the addition of the Architectural Club of San Francisco, has accomplished a great deal of useful work during the year, and it looks forward to becoming still more useful hereafter. It has received from the President and Fellows of Harvard University three scholarships in architecture, the fruits of which will be awarded to members of the League. Two of these scholarships are awarded as the result of a competition in design, and the third is bestowed upon the member of the League passing the highest regular entrance examination under the conditions set forth in the catalogue of Harvard University. The competition for these scholarships was held early in September, and the winners thereof are now in attendance at the University. The competition for the scholarships for next year will be held late in February or early in March, and the awarding of the third scholarship will be made upon the regular entrance examinations, to take place, as stipulated in the catalogue, in June and September. It is expected that a large number will avail themselves of this opportunity of securing an education and of deriving for themselves the splendid benefits will will be derived from an opportunity of this kind. The Architectural League will hold a competition for the foreign traveling scholarship in architecture in February, and the funds for this enterprise for the coming year have already been secured and will soon be available for use.

The standing committees of the League are the Current Club Work Committee, aiming to study the question of club management, and give advice and any suggestions to various clubs which will prove valuable in their work; the Educational Committee, which is making a serious study of the educational systems in vogue in the various schools, with the idea of obtaining from this data suggestions which will lead to still greater improvements in our facilities for architectural training; the Committee on Cooperation with the American Institute of Architects, whose mission is obvious from its name; the Committee on Publicity and Promotion, whose work is also obvious.

The Architectural League is contemplating an extension of its functions by the publication of a regular annual volume, which will epitomize the work of its members during that period. This book will contain not only carefully selected plates from all the various club catalogues of the United States, but also a number of the best papers which have been read at the convention or at the meetings of the different clubs. It is expected that such a book will become a necessary adjunct to every architect's library, and that, with the money derived from its sale and from the advertisements, a foreign traveling scholarship can be maintained. The project for the publication of such a volume will be an important item in the business of the coming convention, which will also discuss the regular holding of exhibitions in conjunction with the annual meetings, the securing of a better understanding among the various architectural clubs in the country, and active participation in the various plans for municipal improvement, which are claiming attention in the different American cities.



THE BLACK HOUSE. A. C. Eschweiler, Architect.

Milwaukee, Wis.



TENNIS AND RACQUET CLUB.

Boston, Mass.

Parker & Thomas, Architects.



NAUGATUCK HIGH SCHOOL.

Two Notable Buildings

In central Connecticut there are two notable buildings designed by the same architects, erected by one firm of builders, and with the capital of one man behind them. The chief interest attached to these buildings lies in the marked contrast in their respective modes of construction, the contrast between the commercial and monumental. A builder rarely has more than one chance in his career to erect a truly monumental structure, where the desideratum is permanence and not rapidity of construction at the lowest cost. This opportunity has been given to the Tidewater Building Co., of New York City, and that they have made the most of it is attested by all who have seen the Naugatuck High School, with possibly one exception, the most beautiful and completely equipped school building in the country. Its erection was made possible by the generosity of Mr. J. H. Whittemore, of Naugatuck, Conn., while Messrs. McKim, Mead & White, the eminent architects, are responsible for its design.

The school building is situated on the side of a hill overlooking the town park, from which it is approached by flights of granite steps, and a serpentine driveway. So steep is the incline that the first three stories of the building may be entered directly from the ground. Classic is the style used, and a treatment more appropriate to the commanding position of the school could not have been conceived. The first story is in granite, while brick and limestone are used for the upper stories.

The educational equipment includes the usual recitation and assembly rooms, auditorium, chemical and physical laboratories and lecture rooms, manual training shop supplied with individual benches and

lathes, kitchen for cooking classes, a gymnasium with the most modern apparatus, and a running track. In addition there are several drawing and reception rooms for the teachers and a room specially equipped with typewriters for a commercial class. Constantly pure air and a uniformity of temperature are insured by automatic heat regulation and ventilation, and perfect cleanliness is maintained by a vacuum cleaning system, available in any part of the building.

The interior finish and furnishing is carried out in the same complete way, making this a most conspicuous example of what may be done to give a public school the greatest utility and comfort.

The other building referred to, and known as "The Buckingham," is located at Waterbury, and will be ready for occupancy about May 1st next, though work was not commenced until last June. This building combines a music hall, with a seating capacity of fourteen hundred, offices and stores. On the roof is a series of light and airy studios. The construction is semi-fireproof, and the exterior is treated in white terra-cotta, mat finish, the window recesses being filled with Roman stucco, which adds a touch of color to an otherwise perfectly white façade.

The Tidewater Building Company has been doing an extensive building business in this section of Connecticut ever since its organization, and its facilities for carrying out any class of construction work and contracting are as fully complete as in the vicinity of New York City, where many fine examples of modern buildings prove their ability in construction work. Their New York address is No. 25 West 26th Street.



THE BUCKINGHAM BUILDING, WATERBURY.

"SWEET'S" "The Book of Catalogues"

A Department Devoted to Items of Interest Regarding
"Sweet's Indexed Catalogue of Building Construction"

ENDORSEMENT

NEARLY three thousand Architects have directly or indirectly approved of the plan, purpose and method of dealing with the "catalogue problem" embodied in "Sweet's Indexed Catalogue of Building Construction." Nothing could demonstrate more decisively the need that exists for a work of the character here presented than the extreme cordiality with which from the very conception of the enterprise practically the entire architectural profession have assisted and encouraged the publishers. The publication here even of excerpts from thousands of commendatory letters (literally thousands) would be merely a tedious exhibition of approval and would add nothing to the practical value of the book. The Publishers, however, cannot refrain from printing the following Endorsement with the names of the distinguished architects who have signed it:

To the Architectural Profession and the Public:

We, the undersigned, while recognizing the utility of the trade catalogue, are convinced that its value at present is materially impaired by its heterogeneous distribution, its diversity in shape and form, and its general unsuitableness of contents and arrangement for the purpose of reference—the value of a catalogue in an architect's office being confined very largely to "reference."

Trade literature to be of service in the specification room (1) should be condensed, (2) should be arranged upon some organic principle, (3) should state facts and give positive information and finally, (4) should be arranged essentially for the purpose of reference.

The publishers of "Sweet's Index" have undertaken to group together all catalogues on this principle so as to supply the architectural profession with an encyclopaedia or dictionary of building materials and building material firms accompanied by an extensive and scientific cross-index, by means of which the architect may refer without difficulty to any information for which he may be seeking. The architectural profession cannot remain indifferent to an enterprise of this scope, character and value. Therefore, without assuming the slighest responsibility for any statement made in the text matter of this work, we are pleased to join with Mr. Nolan in endorsing and commending the PURPOSE, the IDEA, the METHOD, and the PRINCIPLE that underlie "Sweet's Index," as a real solution of the existing "catalogue problem."

WM. MARTIN AIKEN, 33 Union Square, West, New York City, N. Y.
CLAIRE ALLEN, Jackson, Mich.
BABB, COOK & WILLARD, 3 West Twenty-ninth Street, New York City, N. Y.
J. M. BAILLIE, Y. M. C. A. Building, Peoria, Ill.
FRANK C. BALDWIN, 1103 Union Trust Building, Detroit, Mich.
CHARLES I. BERG, 571 Fifth Avenue, New York City, N. Y.
OTTO BLOCK, ROCHESTER, N. Y.
BOLL & TAYLOR, First National Bank Building, Cincinnati, O.
CLAUDE BRAGDON, 104 Cutler Building, Rochester, N. Y.

BROCKWAY & TAYLOR, 37 Syracuse Savings Bank Building, Syracuse, N. Y.
ARNOLD W. BRUNNER, 33 Union Square, New York City, N. Y.
CLARK & MUNGER, Bay City, Mich.
CLAUSEN & CLAUSEN, Davenport, Iowa.
HENRY M. CONGDON & SON, 18 Broadway, New York City, N. Y.
JAMES B. COOK, Randolph Building, Memphis, Tenn.
FRANCIS W. COOPER, 108-15 Pope Block, Pueblo, Col.
R. L. DAUS, 130 Fulton Street, New York City, N. Y.
ROBT. E. DEXTER, 33 Canby Building, Dayton, Ohio.
A. F. D'OENCH, 289 Fourth Avenue, New York City, N. Y.
GUSTAV W. DRACH, Union Trust Building, Cincinnati, O.
WM. S. EAMES, 711 Lincoln Trust Building, St, Louis, Mo.
STEPHEN C. EARLE, 339 Main Street, Worcester, Mass.
E. J. ECKEL, St. Joseph, Mo.
JOHN H. & WILSON C. ELY, 800 Broad Street, Newark, N. J.
GEORGE B. FERRY, Milwaukee, Wis.
CLELLAN WALDO FISHER, Worcester, Mass.
W. E. FISHER, Railway Exchange Building, Denver, Col.
HERBERT W. FOLTZ, 30 Union Trust Building, Indianapolis, Ind.
FROST & GRANGER, 806 The Temple, Chicago, Ill.
HENRY LORD GAY, 52 Dearborn Street, Chicago, Ill.
ARTHUR N. GIBB, Ithaca Trust Co. Building, Ithaca, N. Y.
ROBERT W. GIBSON, 76 William Street, New York City, N. Y.
GREEN & WICKS, 110 Franklin Street, Buffalo, N. Y.
GEORGE F. HAMMOND, 166 Euclid Ave., Cleveland, Ohio.
FRED. B. HAMILTON, 533 Beal's Building, Kansas City, Mo.
SAMUEL HANNAFORD SONS, Hurlbert Block, Cincinnati, Ohio.
H. J. HARDENBERGH, 1 West 34th Street, New York City, N. Y.
W. S. HEBBARD, San Diego, Cal.
CHARLES HENRY & SON, 117 East Market Street. Akron, Ohio.
HUBBELL & BENES, Citizens' Building, Cleveland, Ohio.
WM. B. ITTNER, Board of Education Building, St. Louis, Mo.
CLARENCE H. JOHNSTON, St. Paul, Minn.
HARRY W. JONES, Lumber Exchange, Minneapolis, Minn.
JOSSELYN & TAYLOR CO., Cedar Rapids, Iowa.
E. A. KENT, Ellicott Square, Buffalo, N. Y.
THOS. R. KIMBALL, 503 McCague Building, Omaha, Neb.
KIRKHAM & PARLETT, Springfield, Mass.
EDWARD KNEEZELL, El Paso, Texas.
LEENHOUTS & GUTHRIE, Milwaukee, Wis.
THEO. C. LINK, St. Louis, Mo.
W. E. MANSUR, Bangor, Maine.
THOS. H. MORGAN, Prudential Building, Atlanta, Ga.
WM. G. NOLTING, 2 East Lexington Street, Baltimore, Md.
J. O'ROURKE & SONS, Newark, N. J.
W. A. OTIS, 175 Dearborn Street, Chicago, Ill.
OWSLEY & BOUCHERLE, Youngstown, Ohio.
PARFITT BROS., 26 Court Street, Brooklyn, N. Y.
WM. HOWE PATTON, Union Trust Building, Parkersburg, West Virginia.
FREDERICK W. PERKINS, 204 Dearborn Street, Chicago, Ill.
W. M. POINDEXTER, 806 Seventeenth Street, Washington, D. C.
RAPP, ZETTEL & RAPP, 607-8 Johnston Building, Cincinnati, Ohio.
W. H. REEVES, Peoria, Ill.
JAS. W. REID, Claus Spreckles Building, San Francisco, Cal.
G. W. ROE, 91-93 Grand Opera House, Pueblo, Col.
WALTER C. ROOT, 701 Postal Building, Kansas City, Mo.
RUTAN & RUSSELL, First National Bank Building, Pittsburg, Pa.
CHAS. K. RAMSEY, 604 Wainwright Building, St. Louis, Mo.
C. E. SCHERMERHORN, 430 Walnut Street, Philadelphia, Pa.
JOHN SCOTT & CO., 518 Maffot Block, Detroit, Mich.
JOHN S. SIEBERT, Cumberland, Md.
C. B. J. SNYDER, 500 Park Ave., New York City, N. Y.
JOS. G. STEINKAMP & BRO., 1212 Mercantile Library Building, Cincinnati, O.
JAMES STEPHEN, 726-727 New York Block, Seattle, Wash.
H. T. STEPHENS, 152 Market St., Paterson, N. J.
JOHN C. STEVENS, Portland, Maine.
STONE, CARPENTER AND WILLSON, Providence, R. I.
LOUIS H. SULLIVAN, 1600 Auditorium Tower, Chicago, Ill.
WM. ALBERT SWASEY, 40 West 33d Street, New York City, N. Y.
C. C. & A. L. THAYER, New Castle, Pa.
CHAS. L. THOMPSON, Little Rock, Ark.
FREDERICK A. TOMPSON, 156 Free Street, Portland, Maine.
ALEXANDER B. TROWBRIDGE, 79 Wall Street, New York City, N. Y.
ALBERT TURNER, 705 Dwight Building, Kansas City, Mo.
MORRISON H. VAIL, Dixon, Ill.
E. PHILIP VARIAN, 413 Nassau Block, Denver, Col.
ADRIANCE VANBRUNT, 716 Delaware Street, Kansas City, Mo.
WATSON & HUCKEL, 1211 Walnut Street, Philadelphia, Pa.
FRED. W. WENTWORTH, City Trust Building, Paterson, N. J.
WM. CHANNING WHITNEY, Minn. Loan Trust Building, Minneapolis, Minn.
GEO. G. WILL, Gardner Building, Toledo, Ohio.
B. F. WILLIS, York, Pa.
T. C. YOUNG, Lincoln Trust Building, St. Louis, Mo.

VOL. XIX. No. 3. MARCH, 1906. WHOLE No. 90.

THE ARCHITECTURAL RECORD

CONTENTS

PAGE

RECENT SUBURBAN ARCHITECTURE IN PHILADELPHIA AND VICINITY—ILLUSTRATED . . . 167
PROF. THOMAS NOLAN

THE NEW HARVARD CLUB-HOUSE—ILLUSTRATED 195
HERBERT CROLY

A REVIEW OF MR. RUSSELL STURGIS'S LAST BOOK 199
JOHN LA FARGE

OUR ARCHITECTURAL ANARCHY—ILLUSTRATED 207
CRITICASTER

PAUL REVERE'S OLD NORTH CHURCH 215
WILLARD FRENCH

BUILDING THE NEW CAMPANILE . 223
A. S. ATKINSON

NOTES AND COMMENTS 227

The Education of a Colonial Carpenter—The Wanamaker Store in Philadelphia—Japanese Art and Architecture—Cram's Japanese Architecture—Isham's History of American Painting—The Metropolitan Museum—Municipal Progress Since 1880—A Proposed Classical Exposition—Ecton Church Controversy—Civic Art Reports.

C. W. SWEET, Publisher R. W. REINHOLD, Business Mgr.
H. W. DESMOND, Editor H. D. CROLY, Associate Editor

Subscription (Yearly), $3.00 **Published Monthly**

TWENTY-FIVE CENTS

THE ARCHITECTURAL RECORD CO.
NEW YORK

TWENTY-FIVE CENTS

OFFICE OF PUBLICATION: Nos. 14 and 16 VESEY STREET, NEW YORK CITY.
WESTERN OFFICE: 511 MONADNOCK BLDG., CHICAGO, ILL.



FIG. 1. HOUSE OF MRS. WALTER COPE.

Germantown, Pa. Cope & Stewardson, Architects.

The
Architectural Record

VOL. XIX. MARCH, 1906. No. 3.

Recent Suburban Architecture in Philadelphia and Vicinity

The suburbs of Philadelphia, and much of the country in the adjoining counties, have been often compared in their general character and appearance to the English counties in the southwest, especially Devonshire and parts of Somerset. The city itself, at least in its older central portions, is generally flat; and the plan of the streets, with the square miles of square corners, with the absence of diagonal avenues and the lack of opportunities or possibilities of picturesque vistas; with the want of curving roads and of hills of any kind, suggests anything but the charming, rolling stretches of land that surprise the traveler after a very few minutes' ride in any direction from the city hall.



FIG. 2. HOUSE OF MRS. WALTER COPE.
Germantown, Pa. Cope & Stewardson, Architects.

Copyright, 1906, by "THE ARCHITECTURAL RECORD COMPANY." All rights reserved.
Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879.



FIG. 2. THE HOUSE OF MR. JOHN H. PACKARD, JR. Cope & Stewardson, Architects.

Haverford, Pa.

Some of the immediate suburbs make one think of quiet old English towns. There is scarcely a trace of the American "newness" about them; and there are lanes that wind about and lead over and beyond, lined with vine-covered walls and shaded by fine old trees. Further out still is the rolling country, hills and wooded crests, hedges and fields and meadows, with the brook at the lower end by the willows, and with the occasional and isolated oak tree halfway down.



FIG. 3. LIVING ROOM IN THE HOUSE OF MR. J. WILMER BIDDLE.
Chestnut Hill, Pa. Cope & Stewardson, Architects.

There is something, too, about the very atmosphere of these places that at least suggests some phases of English rural home life, and it is admittedly more distinctly obvious here than in the suburbs and neighboring country of New York or Boston or any of the larger American cities. It is here, amid these happy surroundings, so appropriate and fitting as a background and setting for American home life, that some of the very best examples of domestic architecture are to be found, just as in the business part of the city of Philadelphia itself are to be seen some of the best examples of urban work recently executed. And this, in and about a city, upon which were perpetrated, during that period between the time of the dignified and inoffensive "red-brick-and-white-marble" work, and the beginning of the present good designs, some of the most distressing structures imaginable.

It is only within the last thirty or forty years that the architecture of the United States has entered upon an independent course of development, and even this development has not yet produced what may be called a distinctive and real style. But there may be seen, as in the examples considered in this article, the



FIG. 4. THE RESIDENCE OF MR. FRANCIS L. POTTS.
Bryn Mawr, Pa. Cope & Stewardson, Architects.



FIGS. 5 AND 6. HOUSE OF J. WILMER BIDDLE.

Chestnut Hill, Pa. Cope & Stewardson, Architects.



FIG. 7. HOUSE OF MR. FRANCIS I. GOWEN.
Chestnut Hill, Pa.
Cope & Stewardson, Architects.

employment of some new constructive methods, the beginnings of new types, and what has been well described as "a distinctive American treatment of the composition and masses, with the decorative details for the most part still derived from historic precedents." Just as it is in our commercial buildings in the cities, that we have developed wholly new types in one class of edifices, so it is in the field of domestic architecture, and particularly in rural and suburban architecture, that we meet with the most characteristic and original phases of American work; and an examination of the following examples, taken from the designs of recent Philadelphia homes, and by Philadelphia architects, will illustrate many of these interesting phases.

Included in the list of some of the more recent suburban dwellings designed by Cope & Stewardson are the excellent examples of successful domestic American architecture shown in Figures 1 to 8.

The residence of Mrs. Walter Cope, on East Johnson Street, Germantown, is built of a brownish gray stone. The front towards the street has the small entrance porch, with the seats at the sides, while the "living porch" is on the rear façade, and faces an attractive garden sunk to the depth of a small terrace. There is here, as indeed there is in many of the other examples shown, the breadth and width and comfort, the protection of the far overhanging eaves, the single step from out of doors to the hospitality awaiting one within; while over and around all, and remaining with the artist's touch, is the memory and spirit of one who did so much for American architecture.

Designed with the same general feeling and effect, and standing on well-wooded grounds among some fine old trees at Haverford is the residence of Mr. John H. Packard, Jr. Here the material used is a rich dark red brick, laid with "the joint that is wide, and the bond that is Flemish," and called upon to do duty so effectively in bond-course and water-table, window-cap and quoin. Here, in the first story, as in the Cope house, are those solid outside window shutters so common in Eastern Pennsylvania, with the "plank front" frame, the narrow reveal, and the new moon cut in the middle panel.

The rest of the illustrations of Cope & Stewardson's work represent another division in the classification of suburban



FIG. 8. HOUSE OF MR. J. WILMER BIDDLE.
Chestnut Hill, Pa.
Cope & Stewardson, Architects.

domestic architecture. These houses are large and more elaborate in plan, more costly, less compact, and include the country villas, in the modern American sense of the term "villa." They suggest the "ancestral style" in England, adapted to new conditions and developed in a new environment.

The residence of Mr. Francis L. Potts, a photograph of which is shown in Figure 4, stands at the highest point of a large and thickly wooded property. The trees have been cut out on different sides, and there are vistas through the woods, but the "formal gardens," which are to come, are not yet laid



FIG. 9. CORNER OF THE LIBRARY.
House of Mr. E. C. Deardon.
Duhring, Okie & Ziegler, Architects.

out. The material used for the body of the house is a warm gray stone, laid in random rubble carried to the corners, but emphasized there, as it were, with a slightly stronger accent. For the rest of the work, including the porches, Green River limestone is used, while for the roofs the architects chose the dark red of the tile for the capping of the color scheme. The plan, in a word, is a hall in the middle from front to rear, with reception-room, music-room and library on one side, and billiard-room and dining-room on the other, with the kitchen wing beyond.

The two houses shown at Chestnut Hill designed by Cope & Stewardson are the residences of Mr. Francis I. Gowen and Mr. J. Wilmer Biddle. The former is in a curious situation, seeming to be on very low ground to one approaching. But upon coming nearer, it is found that it overlooks a beautiful valley, part of the hill behind the house screening it from the road. In its coloring it is the gray of the stone in the bordering frames of the white-painted wood. In plan it is a long house, relatively to its width—accidentally and interestingly long—for it has been added to at different times, and was not conceived at first and at once as it appears in its present design.

The grounds of Mr. Biddle's residence overlook the Wissahickon Valley, and the house is planned to have a terraced garden covering the slope on the southwest side. In this house, in contrast with the Potts and Gowen houses, the color scheme is red, not only in the body with the brick, but also in the stone at the windows, doors, gable coping and elsewhere.

The residence of Mr. Wm. T. Wright, designed by Brockie & Hastings, and shown in Figures 10 and 12, is ideally situated on high and wooded ground equally distant from the stations of Wayne and St. Davids. On the eighty acres of the estate there was one best spot on which to build the house, and there it is built, with the windows and piazzas looking away to the east, south and west, down the wide sloping lawns, across the meadow and the brook to Mr. Chas. C. Harrison's charming "Happy Creek Farm" and the woods beyond. Foxcroft stone is used for the body of the house, and the Bowling Green limestone for the trimmings, while the chimneys are of brick against the green slate of the roof. The floors of terrace and porch are red with the quarry tiles, that red that complements so well the green of terrace and lawn. The windows are big for the air and the sunshine, and the porches are wide for the shade. Whatever may be the defects of composition or detail, if there are any which are of more than relative unimportance, and whether or not we choose to call the style "Americanized Elizabethan," the design of the house itself, or at least of the house without the piazza, belongs in



FIG. 10. THE HOUSE OF MR. WILLIAM T. WRIGHT. Brockie & Hastings, Architects.
St. Davids, Pa.



Figs. 11 and 12. The upper illustration shows the entrance hall in the house of Mr. George C. Blabon, by Duhring, Okie & Ziegler, while the lower shows the hall in the house of Mr. Wm. T. Wright, by Brockie & Hastings.



Figs. 13 and 14. The upper illustration is the house of Mr. E. C. Deardon, and the lower one is that of Mr. Geo. C. Blabon. Both houses are situated at Merion, Pa., and have been designed by Duhring, Okie & Ziegler.

the list of the very interesting and successful solutions of the problem of the country villa in the United States. The detail of the piazzas, and particularly of the accompanying balustrade, is different from that of the balcony over the doorway and of the rest of the work, but undoubtedly there were good reasons for the change.

The houses shown in Figures 11, 13, 14, 15 and 16 are the work of architects, Duhring, Okie & Ziegler, those of Mr. Blabon and Mr. Deardon being on adjoining properties at Merion, and the Patton house being at Rosemont. In the residence of Mr. Geo. C. Blabon there is a combination of brick and "pebble-dash" construction, with a bit of half-timber work in two of the gables, and suggested again in the smaller gables of the porches. The mottled brickwork of the first story is carried up to the eaves in the kitchen wing, and to the chimney-pots in three of the chimneys; while the gray-white pebble-dash runs down to the water-table in one part of the rear façade, and to the top of the front chimney. The exterior, like all those with the change in direction of horizontal axes, suggests an interesting plan. The general effect of the composition, at least of the front façade, is one of breadth, simplicity, a reasonable emphasis of constructive features, and the observance of a seemly reticence in the matter of constructing useless and inappropriate ornamentation. Of course it all looks brand new, as it is, having been very recently completed. It needs the trees and the shrubs, a vine and a garden, even if they do cover up or attract the attention from some part of the architec-



FIG. 15. HALL IN THE PATTON HOUSE.
Rosemont, Pa. Duhring, Okie & Ziegler, Architects.



FIG. 16. THE PATTON HOUSE. Duhring, Okie & Ziegler, Architects.

Rosemont, Pa.

tural composition. The two photographs of the reception hall and the dining-room indicate the general character of the interior detail.

Adjoining the Blabon house is the residence of Mr. E. C. Deardon, a building whose design recalls or suggests memories of American Spanish Renaissance, as the former house undoubtedly speaks of modern English work.



FIG. 17. STAIR HALL IN THE McCALL HOUSE.
Germantown, Pa. George T. Pearson, Architect.

According to their temperament, training and genius, the greater number of the architects of to-day have open to them a choice of procedures in methods of design; for some develop, in a more or less vigorous manner, purely local types; some strive for lawful adaptations of historic styles to American conditions; and some follow the commands of scholastic and academic theory. A few, to whom the gift is given, have no choice. They follow rather the instinct of the poet. If there is a foreign accent, it is one of charm; if there are suggestions of the styles of other days, they are only reminiscent. It is not the purpose of the writer to attempt any classification of the designs presented in this article based upon the above. In the present state of American domestic architecture this would indeed be a difficult and invidious task. But in any examination and comparison of the designs of a number of architects of work which embodies the same kind of problems, it is interesting to note how often the temperament and disposition and character of the man, aside from any conventional architectural training, are impressed upon his work.

In the planning and in the composition and disposition of the masses in the Patton house at Rosemont, as in some other designs presented, the architect has not put his entire building under one and the



FIG. 18. HOUSE OF MR. J. LEVERING JONES.
Chestnut Hill, Pa. George T. Pearson, Architect.

same roof, and there are two compositions next to each other, one facing one way, and the other the other way. But it has been said by a writer of note* that, "it is the very artlessness of the planning, in the endeavor to meet the peculiar requirements of American domestic life—the planning which is arranged to afford the maximum of convenience rather than to conform to any traditional type—that has been the element of greatest artistic success in domestic architecture in the United States"; and that "this has resulted in exteriors which are the natural outgrowth of the interior arrangements, frankly expressed, without affectation of style." This is undoubtedly true; but perhaps it is because the designer sometimes takes this too much for granted, that the exterior composition lacks unity and does not hold together as one design, of one building, for one ménage, and under one roof.

The residence of Mr. J. Levering Jones, of which a part of the surrounding lawns and the stable are shown in the photograph, Figure 18, was designed by Mr. Geo. T. Pearson. It is situated at Chestnut Hill, on the Wissahickon Heights, on an ample site of gently rolling ground, and from its elevated position is an object of prominence in that neighborhood. The architect has broken away from the use of gray stone, seen so frequently in that locality, and adopted a style for a long time neglected there, this being the first mansion with a portico of this kind built near Philadelphia for about ninety years. It has the stateliness of the Southern provincial style, and the warm red color of the Maryland brick set in a frame of white.

By the same architect is the McCall House in Germantown. The requirements of the client in this particular case, and particularly impressed upon the architect, were restfulness and quietude. To meet these, in the planning and constructional details, brick partitions and deadened floors were adopted, and the interior arrangements were so ordered that all noise-producing agencies of the household were set away from the family



FIG. 19. THE McCALL HOUSE.
Germantown, Pa.
George T. Pearson, Architect.

*Professor A. D. F. Hamlin, in "A History of Architecture."





FIGS. 20 AND 21. THE HOUSE OF MR. ALAN H. REED.
Wayne, Pa. Price & McLanahan, Architects.

portion of the residence. To meet these requirements in the exterior design, dignity and repose were the themes in the mind of the architect, and he has certainly embodied in the façades, with a large measure of success, these qualities, which are as surely architectural as they are human. This house, like others of the same general design and style shown and spoken of in this article, can without hesitation be called in its general aspect "American." It is adapted to the special requirements of the owner, and is a simple, natural, straightforward fulfilment of those requirements.



FIG. 22. THE HOUSE OF MR. WHEELER JENKINS.
Mt. Airy, Germantown, Pa. Savery, Scheetz & Savery, Architects.

The residence of Mr. Alan H. Reed is shown in Figures 20 and 21. This design is the work of architects Price & McLanahan, and the fine situation, with the unobstructed views in all directions, offered them excellent opportunities for observing the results of studied composition, seen in perspective from different approaches, and for comparing the appropriateness of different skylines. The composition holds together remarkably well, from whatever the point of view, in spite of a considerable irregularity in plan; and one feels that it is one house, under one roof and for one family, which cannot always be said of the designs of modern American villas, especially when the plans are somewhat complicated and involved. The fenestration is good, and the disposition and proportioning of those bands and courses which, while tying all together horizontally, still tend to give a certain feeling of breadth, are well thought out. How often a skilful treatment of horizontal elements of detail in a composition—a composition not particularly restful *per se*—seems to help out in "keeping things quiet." The surface ornamentation in diaper pattern work in

the walls is well done, and the coloring of the body of the work is rich and warm, dark red rough brick with dark headers being used; but the contrast in color between it and the limestone trimmings is too strong when seen in the building itself, just as it is in the photograph.

Two examples of the work of architects Savery, Scheetz & Savery, in suburban domestic architecture, are given in Figures 22 and 23. There is a great contrast in the designs, and also in the materials employed for that phase of their outward expression which has to do with texture and color. The house shown in Figure 22 is the residence of Mr. Wheeler Jenkins, at Mount Airy, Germantown. There is nothing to hold one as a matter of great interest in the composition. The box porch had to be there, and the treatment of the side gable and chimney in relation to the wall surface below and the treatment there employed, is unfortunate. But this whole treatment of the rough-cast on brick, with its grayish white color, and with the dark red bricks used in occasional wall surface and trimming and chimney, is one of great interest and fascination; and those who know the work of the English architects, for example, that of C. F. W. Boisey in the southwest counties, know its possibilities.



FIG. 23. HOUSE OF MR. G. ELWOOD WAGNER.
Germantown, Pa. Savery, Scheetz & Savery, Architects.

Turning now to the second example of the work of these architects, the residence of Mr. G. Ellwood Wagner, in Pelham, Germantown, we have an absolutely symmetrical, simple, and withal satisfactory design of the street front. Cornices and porch and hood are white, and the brick, in Flemish bond, is dark red, deepened in color with oil, and laid



FIG. 24. THE HOUSE AT BRANDYWINE MEADOW FARM.
Chas. Barton Keen, Architect.

with a deep and wide round joint. With bricks also are fashioned terrace, window-cap and quoin. The shingles of the roof are gray, and the blinds are white and green in the two stories. Another column by the wall pilaster of the porch would look better, even if it would also certainly be a nuisance and in the way.

The three examples taken from the designs of Mr. Charles Barton Keen are the Marsden house at Chestnut Hill, the Wainwright house at Bryn Mawr, and the Mather house at Brandywine Meadow Farms.

The first of these is the residence of Dr. Marsden. The house is situated on the old historic Germantown Road of revolutionary days, where colonial or Georgian reminiscences in intelligent and consistent architectural design, as in other memories, is particularly appropriate. The site of this dwelling enjoys the advantage of fine old trees and planting, but the sloping of the ground away from the road and towards the house is



FIG. 25. THE HOUSE OF MR. F. KING WAINWRIGHT.
Bryn Mawr, Pa. Chas. Barton Keen, Architect.



FIGS. 26 AND 27. THE HOUSE OF DR. MARSDEN.
Chestnut Hill, Pa. Chas. Barton Keen, Architect.





FIGS. 28 AND 29. FARM BUILDINGS AND GARDEN AT BRANDYWINE MEADOW FARM.
Estate of Mr. Chas. E. Mather. Chas. Barton Keen and Frank Mead, Architects.



FIG. 30. NO. 810 PINE STREET.

Philadelphia, Pa. D. Knickerbacker Boyd, Architect.



FIG. 31. RESIDENCE NEAR ST. DAVIDS.
Pennsylvania. D. Knickerbacker Boyd, Architect.

unfortunate. The preliminary sketches provided for, and it is still the intention to add, a wing on the left, to correspond with the one on the right, thus giving the symmetry which such a formal design requires. In the brickwork, the headers are of the same shade of color as the stretchers, the shade of the "colonial red"; and what little stone is used is the Indiana limestone. All the woodwork is white. In these views, nature and art have joined in the making of compositions and pictures altogether charming and attractive.

The second of Mr. Keen's designs is the country residence of F. King Wainwright, Esq., at Bryn Mawr. It is on the steep slope of a hill looking out towards the southwest, and overlooking the brook and the old grist mill, from which it takes its name "Mill Brook." In plan the main part of the house is a long rectangle, roofed in the simplest manner, and is so orientated that the principal living-rooms and sleeping-rooms have a southern exposure, the entrance hallways and rooms of minor importance being placed on the northern side. The manner of using the materials of exterior construction and the general effect of the result suggest the methods of the impressionist in painting. In the lower walls, up to the half-timber work, are the native undressed long flat bed-stones, laid with wide white pointing; rough chestnut is used for the half-timber work frames of plaster panels, which are of the roughest texture and white in color. For the roofs, old-fashioned split cypress shingles are used.

The third design, representing Mr. Keen's work, is shown in the buildings of the country and hunting estate of Mr. Charles E. Mather, known as "Brandywine Meadow Farm." The estate is situated about six miles south of West Chester, Pa., in a beautiful rolling country, through which flows the "Brandywine Creek," famous since the Battle of Brandywine and "Chads Ford" in revolutionary days.

Figure 24 is a view of the house taken from one of the arches of the stable buildings. The house is an old building dating back to the year 1770, and remodeled, added to and modernized by architects Charles B. Keen and Frank Mead. The large columned porch is an addition, and other alterations and additions were made; but the plan is largely preserved, and also much of the old exterior, while, as an evidence and example

of the good construction of former days, there remain intact all the original framing timbers, and throughout the house the eight and ten inch wide, old-fashioned floor boards, all cut from the white oak trees of the timber lands of the estate. In the wing, on the left, and back of the dining-room and serving-room, is the big, old-fashioned kitchen, with its Dutch oven, and open fireplace for cooking.

The residence at 810 Pine Street, Philadelphia, was designed by Mr. D. Knickerbacker Boyd, and has its street façade built of brick, laid in Flemish bond with black headers and in the old colonial style. In design and coloring it stands entirely apart from the other houses in its immediate vicinity,—houses which were erected during the "brown-stone-front" period of American architecture; but it is directly opposite the grounds and buildings of the Pennsylvania Hospital, so well known to all admirers of colonial work. It occupies the ground of what was formerly the side garden of the building adjoining it on the right. No excavations were made below the grade line, the entire basement story being on the level shown. A small corner of the front of this story is taken off for a vestibule, which has flagstone paving and flagstone steps to the first landing of the stairway leading to the floor above. The remainder of the ground floor is given up to the space for heating apparatus, coal, etc., and for a large kitchen. One of the interesting features of the house is the front doorway, which was taken bodily from an historic old house in Frankfort, a northeast suburb of Philadelphia, and re-set here. On the second floor, or the first living floor, is the reception-room, library, dining-room and pantries. The mantels throughout are old mantels removed from the same old Frankfort house, from which the front door was taken, and with these fine old pieces in mind at the start, as Mr. Boyd says, "it was but natural that the house should be built to conform as much as possible to them, and also to the traditions of the locality."

Another recent example of Mr. Boyd's work in suburban architecture is given in Figure 31. The house stands back some distance from the public road, and is beautifully situated on a wooded plateau, with gently sloping lawns around, which are unbroken by any roadway in front, the drives winding and curving to the side and rear entrances. The exterior walls of the building are constructed of stone of a color like the white of pine, and of a texture which is rough, and laid with white beveled joints. The motive of the two-storied portico is repeated at one end of the design, and in the latter are placed the conservatory on the first floor, and over it a balcony on the second floor. The main façade faces the



FIG. 32. THE RESIDENCE OF MR. A. P. BAUGH.

Wynnewood, Pa. D. Knickerbacker Boyd, Architect.





FIGS 33 AND 34. HOUSE OF FRANCIS SCHUMANN, ESQ., AND DR. SCHUMANN.
Pelham, Germantown, Pa. Lawrence Visscher Boyd, Architect.

southwest, and the unusually wide windows afford ample light and sunshine; while those opening from the first story upon the terraces are arranged with the "jib" doors in the lower part.

Figure 32 illustrates the design of Mr. D. K. Boyd for the residence of Mr. A. P. Baugh at Wynnewood, Pa., a charming country seat in a fine setting and background of verdure. In coloring



FIG. 35. STABLE AT GLENSIDE, PA.
Lawrence Visscher Boyd, Architect.

the building is, in the lower parts, the reddish brown of the brickwork; in the second story the white of the mortar panels in their frames of dark brown; while the roof is a tone of dark moss green. Rough brick and plaster, stained undressed woodwork and shingles, always give the tones of any color hue, and show the real texture of the materials of construction, just as paint and varnish hide and spoil a surface, giving varying tints of the hue, and reflections of whatever kind of light happens to fall upon it. It is like the difference between the velvets and the silks. The architect has built up his half-timber work in this example, with heavy timbers constructed solidly on double interlined sheathing, and has left it rough on the faces, planing it only here and there by hand for a surface play of light and shade; and this treatment is repeated in the woodwork of the gables and porches. The shingles of the roof are put on in an unusual manner, being laid to uneven lines throughout. The house is long and low. The porte-cochère is a driveway through one end of the building, and from it, through a vestibule, is one entrance to the main hall. On the far side, and in what is practically a detached building, is the laundry and servants' porch. Along the front of the building extends a wide and brick-paved open

terrace. The plan, as in the case of so many of the larger country houses, is long, giving the usual opportunities for a maximum amount of air and sunshine in the greatest number of rooms. The design is generally successful. The lines of the half-timber work are well disposed. but perhaps some of the gables jostle each other, and one of the second story projections seems a little "long-waisted"; but if the stairway is there, the lines are structurally in the right place. Casement windows are in all the rooms, and is it because of the design alone, or is it sentiment, or both, that a casement window, with its little diamond panes of leaded glass and its flower-pot, appeals to us? And is it appropriate only in the cottage, and not in the big country villa? Anyway, there is no sentiment whatever in "box-frames," nor in sashes hung with weights and pulleys.

The design shown of the stable at Glenside, in Figure 35, and of the house at Pelham, Germantown, in Figures 33 and 34, are by Mr. Lawrence Visscher Boyd.

Figure 35 shows really a stable and dovecote combined, about half of it being given up to the pigeon loft. The success in the solution of a "small" architectural problem may be as marked as in the solution of one of great magnitude. This is an interesting little structure, not so much on account of any design, but because the author of it studied the conditions and constants of the architectural equation, gave proper values to the variable quantities, and offered the answer in a simple form. Given: the demand for a very small, very compact stable, with room for three carriages and two horses; with bins and compartments for grain and hap; a pigeon-loft with



FIG. 36. CHAPEL AT SHARRON HILL.

Pennsylvania. Watson & Huckel, Architects.

nests one hundred and fifty in number; and with ample runs in the interior of the building for the pigeons, which are not allowed the freedom of the fields; and with an exterior design and treatment in composition and detail and materials and coloring in keeping with adjoining buildings. Required: To find a solution giving rise to a maximum of commendation, or at least a minimum amount of criticism. A part of Mr. Boyd's correct solution is indicated in the photograph.

Two views are given of the same architect's design of the residence of Francis W. Schumann, Esq., and Dr. Schumann, at Pelham, Germantown, one photograph showing the front and the other the side and rear. The detail in the exterior woodwork is conceived and executed with delicacy and refinement, and by taking the "run of the kiln" in the brickwork, and thus giving an opportunity for a considerable play of color, the possibility of beauty in a simple wall surface alone is illustrated. Although the full two-storied end of the house is planned for the Doctor's office and consulting room in the first story, and for his library on the second story, thus in plan forming a part of the ménage quite different in function from that of the rest of it, still one feels that in elevation and perspective this part is not an organic part of the whole as a unit, and he is tempted to put his hand over this projection on the photograph, leaving the rest to stand for the completed and finished whole. A two-story extension at one end of the cottage, which has really a "story-and-a-half" roof construction, and which has its axis in another line, is not easily made a part of the whole design, and made to look as though it naturally and obviously belonged just there. Of course the smaller bay projection at the other end of the house was easy to handle differently. The writer believes that in architectural design generally, most of the suggestions or criticisms made after the works are completed have occurred also to the designers themselves, often at the very outset; and that in innumerable cases practical or financial or cliential reasons could be given to explain "how it happened."

The interior planning of this house is worked out with great care and skill, and there are many charming bits of detail, as there are in all of Mr. Boyd's work.

The photograph shown in Figure 36 gives an exterior view of the convent chapel for the Sisters H. C. J., at Sharon Hill, Pa. The architects of the chapel are Messrs. Watson and Huckel. The sisterhood is an English foundation, having its motherhouse at Tunbridge Wells, and the style selected for the treatment of the building is English Gothic of the late decorated period. The plan consists of a nave eight bays long of twelve feet each, with aisles rather narrower than usual. The width of the nave is twenty-four feet from center to center of column, and the width of the aisles is eight feet. The nuns' choir and sanctuary occupy three bays, flanked on the north side by a Lady Chapel, while on the south is a chapel dedicated to St. Joseph, and the sacristy. The tower in the west end is the same width as the nave, the total dimensions being in plan twenty-six feet square.

The material used is, for the walls, the Port Deposit stone, while all the exterior and interior trimmings, including all the mullions and tracery, are of Indiana limestone. The wainscotings are of brick, of about the color of the Indiana stone, and the walls above are plastered on brick and tinted a warm green. The roof ceiling is of oak. The total dimensions of the chapel are sixty by one hundred and forty feet.

Prof. Thomas Nolan.



FIG. 1. THE NEW DINING HALL OF THE HARVARD CLUB.

44th and 45th Streets, New York City.

McKim, Mead & White, Architects.

The New Harvard Club-House

Of all the large public or semi-public rooms recently designed and built in New York City, none have excited a more general and livelier interest than the dining-hall in the new Harvard club-house. Wherever architecture is a matter of conversation, this room is continually and, for the most part, approvingly discussed. Let its merits or its defects be what they may, it is undeniably a great popular success. Men who are rarely moved to express an opinion about the appearance of a building or of a room feel themselves safe in becoming enthusiastic over the Harvard dining-hall. The members of the club bring their friends in troops to the building so as to show it off, and when these same gentlemen sit down to a meal in the new hall, they seem to feel that the prosaic act of eating a fifty-cent dinner is sanctified by the majesty of their surroundings. If the pleasure which a piece of architecture gives to the people who use it is any test of its merit, then surely it would be different to over-praise the hall of the Harvard club.

The old Harvard club occupied a lot about 50 feet wide and 100 feet deep on 44th Street, between Fifth and Sixth Avenues. The architects, Messrs. McKim, Mead & White, used in designing it the free adaptation of Colonial forms which of late years they have made so much their own, and which in this instance had a peculiar propriety, because the newer buildings in Cambridge are all of them modifications of the same style. The façade on 44th Street has generally been considered one of the best, as it was one of the first, of their essays in Georgian architecture; but when it came to the interior of the old building the architects were not allowed very much of an opportunity. The club did not have a large sum to spend upon its rooms, and was obliged to be content for the time being with white woodwork and mantelpieces, and with walls plainly finished in crimson material. The club, however, soon outgrew these accommodations, and, assisted by some of its wealthier members, it succeeded in purchasing two lots in the rear of its old building, on which to rear an extension, which would enable the club to be useful in more ways to its larger membership. One of the greatest deficiencies of the old club-house was the smallness of its dining-room. It so happens that the club serves an inexpensive dinner at a fixed price, which is exceedingly popular with the younger members of the club, and during the evening the old dining-room was wholly insufficient to accommodate the members who wanted to dine. There was also a demand for a larger number of living-rooms, and for squash courts, affording an opportunity for indoor exercise in winter. The addition was built in order to satisfy all these needs, of which, of course, the most vital was the need of more dining room. The new building is decidedly larger than the old one, and the greater part of the increased space has been thrown into the new hall. This room occupies the whole of the 45th Street frontage of the building, and two-thirds of its height. The building itself, however, does not occupy the whole width of the lot. A sizeable alley has been left vacant to the east of the extension, which serves the essential purpose of giving the large and lofty dining-hall a row of eastern windows.

It can be inferred from the facts mentioned above that money and space have been liberally spent so as to make the new hall architecturally impressive. A part of the lot has been sacrified in order that it may be sufficiently and effectively lighted, and three stories of ordinary height might have been accommodated between its floor and its ceiling. The architectural scale of the room is, indeed, entirely different from that of the remainder of the building, and for this reason it has been impossible to make an approach to the hall, which is architec-



FIG. 2. THE NEW DINING HALL OF THE HARVARD CLUB.
Between 44th and 45th Streets, New York City. McKim, Mead & White, Architects.
Photo by August Patzig.



FIG. 3. THE CARD ROOM IN THE NEW HARVARD CLUBHOUSE.
Between 44th and 45th Streets, New York City. McKim, Mead & White, Architects.
Photo by August Patzig.

turally worthy of the hall itself, and which prepares the mind of a visitor for the impression which that room must make upon him. But something of this kind is inevitable when new rooms are added to an old building, and it would be mere stupidity to make the incongruity between the old and the new club-house a cause for complaint. The rooms of the old club-house are both in scale and in appearance modest, timid, somewhat conventional examples of carpenters' Colonial, whereas the new hall has the self-assurance of a fine, big, bold architectural idea. The members of the Harvard club should, as they do, glory in the difference, and return thanks that an architect who could conceive such an idea was bestowed upon them, and that they had the money to pay for it. Such a room is worth all the sacrifices of one kind or another which have been made to obtain it.

The photographs reproduced herewith afford a very much better idea of the room than any amount of description, and we shall not attempt to supplement them by a detailed account of the scheme of architectural treatment. We must be content with stating that the hall makes its undeniably great effect because of the propriety with which the scheme of architectural treatment is adapted to its ample dimensions. It is a long, somewhat narrow and very high room, and not by any means brilliantly lighted. At the north end there is a large arched window, but apart from this the only external light it receives comes from the windows to the east, opening upon a narrow court, and the illumination obtained from this source is subdued in quality. This subdued lighting, combined with the great length and height of the room, gives its appearance that touch of mystery which such rooms ought to have, and this sense of mystery is heightened by the severity of the architectural treatment. The dark paneling runs to the level of the balcony at the south end, and above the walls are plainly and solidly finished in Caen stone. The beamed ceiling and the deep reveals of the eastern windows also contribute to the atmosphere of academic sobriety—to the mixed effect of substantiality and mystery which seems appropriate to the halls in which collegians dine. The details of the treatment never or very rarely obtrude. Even the big chimney pieces keep their places against the west wall, and retire pleasantly into the general effect. Certain valid objections can, I believe, be made to some of these details. For instance, the scale of the panels is not very well adapted to a room of such large dimensions, and the beamed ceiling is not, for analogous reasons, as effective as it should be. The decorations on these beams, which are faintly traceable in the photograph taken from the balcony, do not count as they should from the floor of the room. Furthermore, the moose-heads on the west wall are, to my sense, a palpable error in taste; and it ought not to be difficult to substitute for them some architectural symbols more appropriate to a collegiate dining-hall. But such details as these are, or are not, entirely right is a small matter. They do little or nothing to subtract from the high and sober beauty, which makes, I believe, the new dining-hall of the Harvard club unique among the semi-public rooms in New York City.

Herbert Croly.

A Review of Mr. Russell Sturgis's Last Book

By John La Farge

This latest book of Mr. Russell Sturgis is defined by him as an "explanatory" book. His modesty, in part the result of enormous acquirement, does not acknowledge that it is in reality a manner of Encyclopaedia of Art, or of the arts directed and judged by the eye. It is true that it is also a Note-Book of a life all engaged and interested in the arts of design, either through practice or through study, and never away from the love of books and of literature in all its directions. It is also a record of curiosity—of the acquisitions of the collector, the joy of possession, and the inquiries that proceed from interest in the manner in which these many things that curiosity has loved, have been made; what their origins, what their diversities, and how the men who made them worked. The field being enormous, some of these records are slight, at other times they are carried even into the physical details of manipulation, as when Mr. Sturgis, in his description of the way that a sculptor of to-day usually works, shows us the arms plunged into the "mud" or clay, and the very blouse and trousers worn by sculptors, as well as their dusty rooms, and the accumulation of casts and other litter which encumber their workshops. When he follows a piece of incision in an engraved plaque of Japanese bronze (Figure 140, p. 372), he shows how the long leaves represented show alternately their under and upper surfaces by mere variations in the width of the incised lines; and how these incised lines vary in their shape, so that in some the section is nearly rectangular, while in others the section is that of a "V," with two different slopes, from which the light is reflected differently. This he connects with other forms of engraving, and this leads indirectly into concavo-convex sculpture, and "poker" painting, and other forms of drawing; and the filling of these cuts first spoken of, with damascening, and so on until we connect all this with printing, with engraving on wood, line engraving, acquatint, and mezzo-tint, and burin work, and, of course, with etching. So that we pass through these mechanical processes, from the simplest cuts on metal to Rembrandt's most subtle works in drypoint.

Of course, such elaborateness cannot be carried throughout even a book of two volumes, like this, and two of 666 pages. Such a book becomes by far too small for anything but a general mention of certain sides of the arts. Mr. Sturgis, for instance, takes up "flat" painting, and describes it, and speaks of its variations. But, as I have stated elsewhere in another notice, one mere record, in an eighteenth-century book, of the manners of painting white and grey, in eighteenth-century house painting, covers more space than these two elaborate volumes. To go on describing the possible variations, in such cases, would fill hundreds of volumes. Consequently, Mr. Sturgis abandons his descriptions of methods at certain points, and takes up some general directions of the separate forms of the arts, which he inquires into. From the irregular manner of this inquiry, he is obliged to give up a great deal of what he really knows very much of. Thus, for example, in the description of the arts of glass, he has limited what he calls his inquiry—which is really an explanation—and consequently, a reviewer, like myself, interested in the art of glass feels a jealous objection to this special inquiry not going further. This objection at bottom is unjust, because there is nothing in the scheme of these volumes which obliges the author to go any further into anything than what he may be pleased with at the moment. And yet, as the tendency of this book—as of most of our books treating of Art—is educational, there is occasionally a sense of shortcoming in the description of the methods and

*A Study of the Artist's Way of Working in the Various Handicrafts and Arts of Design. By Russell Sturgis, A.M., Ph.D. New York: Dodd, Mead & Co.

reasons, and sometimes in the history of the special form of Art. Thus—pp. 361, 362 and 363, Figs. 137 and 138—we miss the statement of the quality of the glass used in the earliest works we have in windows—the "Arabic windows" (to use this form of definition, which is incorrect, because this is already a continuation of an earlier Byzantine art). For instance, the glass of the Dome of the Rock is so nearly like the "American" glass, which I first made and introduced into art here and then abroad, that only analysis will show the difference. And the pale, transmitted light of the ancient work, is akin to the more recent work of to-day. This, as I said, would account for the statement, quoted by Mr. Sturgis, "of the most sympathetic of the writers on Moslem Art, Albert Gayett:" "The charm of this glass is singularly soft and subdued,—the light seems to come from far away." Here also in our author's description a point of great importance is not stated, and that is, the beveling of the plaster or stone material in which the glass is inserted. Those sloping surfaces framing the glass and which are reflected in it cause an interference of light, and consequently produce a number of complementary colors, which harmonize the color effect of the window, a result entirely missed by our system of "leading."

It was this probability of obtaining a fuller range of complementary colors that led me to the introduction of opalescent glass into the making of windows. Thereby it would naturally be only because of a want of color sense in the makers of windows, that we should not have at all times a sufficient harmony. And, since we have touched upon the modern work, and the present Review is an architectural one, it may be worth stating also that Mr. Sturgis is in error in his statement on p. 367. This is to the effect that no windows have yet been made absolutely without painting, so that, for instance, the figure work, that is to say, the heads and faces, have never been developed otherwise than by painting. As I say, this is an error. I have myself made windows in which every detail of the face, even to the thickness of the eyelid, or of the lips, or the hollow of the nostril, and so forth, has been made in unpainted glass, held together by metallic strips. This, of course, on the very small scale which I have used, becomes costly, because of the minuteness and extreme accuracy necessary. The result has the charm belonging to the translucent methods of work, such as translucent enamels give us.

But of course there is a charm and a beauty to the stained glass where painted surfaces play their part in the elements of decoration, which leads to the artist liking this sudden change to other surfaces, other densities, other reflections, other tones and "values," which can only be obtained by other material. So, in another form of Art, of which our author is fond—the lacquers of Japan, their wood, and even their "rush" work, are decorated with insertions (see p. 345, 346, Figs. 128 and 129) of mother-of-pearl, and stone, and tortoise shell, and glazes of different kinds, porcelain and metal, etc., etc., so as to bring out more distinctly the feeling of very great differences of texture at different places, to enhance the meaning, to tell the story, and, in the case of the representation of the figure, to give it greater importance and dignity, and also, in this latter case, to recall to us the fact that the human face and flesh has a special look to us, different from all else.*

So, in the Japanese work of Korin or his followers, one comes suddenly upon these marks of an acute sensitiveness to these facts in Nature, and a strength and noble interest is added to the meaning, which could never have belonged to a surface of one texture, unless, of course, that exclusion of certain forms of beauty and of reality is carried out by grave and accomplished artists for purposes of self-control and abnegation. But one can see how the older artists trained in a previous period of Japan, or other artists of the same period, might have objected to the lacquer not being of one uniform texture.

*For this the painters in water color and oil, etc., have striven for centuries, to give some essentially different "value" to these most interesting problems to us human beings. Therefore, I cannot agree with Mr. Sturgis in the exception that he takes to painted flesh in his stained-glass windows, of which the greater part is not painted; provided, of course, that this be done by artists, and not by tradesmen.

So that I have insisted upon this point, because it marks a whole line of growth, more or less debatable, such as occurs in the differences between the various architectural forms, and not so much for an objection to any point of view which our author should like to take. To sum up, the limitation of materials is inherent to any form of art, and is part of it. One cannot ask of mediaeval northern architecture without marble, that it should be built in southern manners with inaccessible material. There is always a problem of use: the question is always how well this problem has been treated.

Pintorrichio was right in the Borgia paintings to model special details in relief. He justifies himself by the quality of his work; he had a problem, and used it for a result.

So in the case of inlay of glass in stone, which our author approves of, and which certainly destroys the unity of the stone, though it makes a pleasant change in the decorative appearance. (Fig. 135.)

But Mr. Sturgis himself has put my case still better in this way: "The criticism of a work must of necessity be an examination of what the work is. Little does the world care for the critic's opinion as to whether it might not with advantage have been something else."

It would not then be giving an account of Mr. Sturgis's achievement, to take up too many small points. Mr. Sturgis has so connected his many inquiries that though, again, one might dissent as to the method of his arrangements, he has implied more or less all the way through his inquiries the principles which he has most remarkably well studied in the parts of his book where he undertakes to explain building and architecture, and the manners of composition in the same. In architecture and writing Mr. Sturgis recognizes that either by form of circumstances or by chance the materials imply the form or excuse it or give certain opportunity. These principles of architecture, if referred to at all times, would make the student who would take up his book find his path through the other provinces of Art, for it is upon the same basis that the arts of painting, sculpture, and all ornament are based, i. e., the questions of distribution of mass and proportion, and balance of opposing lines and spaces. Even the realm of color, which is apparently infinite, is limited as to our use of it by these questions of balance and influence. Therein Mr. Sturgis's special training as an architect comes in most excellently. His example shows how valuable is the explanation given by the artist himself, who is handling the processes, and the theories, and habits, and prejudices of his own art. Of course the artist explaining must be a man of knowledge, if it be knowledge that is required; of sentiment, if it be sentiment that is required, and for educational purposes, of course, he must *know*. Knowledge does not consist of merely knowing certain things, but also of knowing what it is one does not know. So that, the mere fact of being an artist in any line would not necessarily imply an excellent teacher in anything more than a given practice. One meets, in that way, remarkable cases of ignorance of the past, and of the very principles of their art in many artists. This used to be very frequent with architects, but is much less so today, and it is still very frequent with painters, and perhaps with sculptors. Of course, in these last two divisions of Art, the constant manual practice, the giving of the whole human being, body and mind, entirely to the object, which is that of *executing* a work of art, must from this very definition give little chance for study, outside, except at the expense of production.

But when the artist in the arts of the hand has any practice in speech or writing, as every day will be more common with the spread of school and college training, what he has to say about himself and his art is of the utmost use, and, in fact, is the only authority. All people interested, that is to say, all real students —for there are no real students except those who are interested in the matter— must make the effort to learn in any direction, whatever it may be,—law, or science, or horseback riding, or art, through the wording of the teachers. These may be obscure, as they are in science and in law, but they can be mastered. The artist's views are liable to

error, as are those of critics, for we are all human. But, if the artist be a conscientious person or a liberal one, or an acute one, it is not necessary to agree with him to obtain support, and direction, and explanation. We can, for instance, in the written works of Fromentin, follow all that he says, and understand it in the most sympathetic way, and yet differ upon certain points. These are the subtle results of integrity. We have the same with the artist in writing, the historian, or otherwise, and we may trust him or not, according to how he inspires confidence, or the reverse. And, as in the case of the writer, the artist in words or in the record of facts [say the historian], there is a reverse process by which we perceive the quality or defect of the work by our appreciation of the character. It is a beautiful explanation of the ugly side of the art of Mr. Gêrome, who is but just dead, that he repeated before his death his willingness to exclude the great Millet from any chance of exhibiting his paintings, if Millet were still alive. And he also said that he thought that anybody could do work like that without difficulty. Gêrome had a military mind, and would always follow the ideas of the regiment or of the commanding colonel.

We recognize at once what an ass the great Mr. Bouguereau must have been, upon the record of his objecting to Puvis de Chavannes, as having no ideal, and we see why, in the mockery of the studios, Mr. Bouguereau was called "Perfection Itself." He had no faults whatever except himself. So that the analogy between the artist in painting, who writes upon any matter, and the artist in writing, is complete.

Mr. Sturgis is quite right in his preface when he warns us against the "statement of many moralists that the artist should teach this or that." The formula attributed to St. Thomas Aquinas is an excellent one, and one that should free us from the annoyances of "Art for Art's Sake," and the converse. The definition, as I remember the Latin, is something like this: *"Ars est locus innocentiae."* It is a land free from responsibility, outside of morality, as if those necessities of the fall of man had not yet occurred. But the artist can use his faculty for right or wrong. He cannot help having a moral side if he exists in this world. But that is in the expression of his art, and not in what he has to say about it, or what he thinks he ought to say about it. Hence, the painter is like his brother, the poet or the dramatist,—he can give us quite well the impression of his moral nature, of his love or hatred of right or wrong, of his sentiments and affections, of his love of virtue, and care for religion, and if we understand how to look at him—and his language is natural to us either by hereditary instinct or by custom—we feel all that side of the man in his work. He has never succeeded in deceiving us. However, when he comes to write about his art, he naturally treats it as all experts do. He devotes his attention to explaining his methods, or the methods of other artists whom he understands or prefers. He cannot give all the details of the method, as we have just seen, because they would occupy enormous spaces of writing.

Whether in the future the artist will write more than he used to must remain yet rather uncertain, but those who have written to any extent have given us most excellent work for every possible meaning. Take in this very review Mr. Cox's explanation of Rodin's work.

Part of what I have said agrees with Mr. Sturgis's statements in the matter, and another part disagrees, perhaps more externally than in reality. But it is always valuable for all concerned to have various forms of criticism proposed to them.

Although I differ again from Mr. Sturgis, in my belief that it is not through an accumulation of effort that we shall appreciate the work of art, but, on the contrary, that our perception must be extremely rapid, and that the work of art must at once fill a need or a void, so that it is a *relief* to us to appreciate it—yet the relative slowness of mind of different human beings would be difficult to gauge. What we feel, perhaps what we think at once—immediately—may be the result of long, unconscious preparation of the mind, not only in ourselves, but in our ancestors.

Still, to return to what I was saying, it would be a help for the artist as well as for all students to have some mode of criticism which would help the first-named in moments of rest and idleness, and for the student be a guide—a manner of opening the doors to the domain of which he wishes to become master or part owner. Thus, a few days ago I was delighted at the statement of a Chinese scholar, who referred to the Chinese manner of opening criticism of the work of art—in this case, painting—by the main question. "Are they original or second-hand?" This is a point which I tried to establish some years ago, in lecturing to the students at the Metropolitan Museum. But even after a long experience I should give a great deal to have an infallible criterion to make that one absolute division. Such a principle would explain why some of my Oriental friends could analyze with the rapidity of lightning the make-up of a painting by some Western artist never seen before, and belonging to some school absolutely unknown to them.

The subject of the inquiry of Mr. Sturgis, "The Artist's Way of Working," could then be divided into two different manners of inquiry. A student might find it more easy to have the mechanism of painting explained to him in the work of an imitator than in an original master or leader. Or he might be taught to see the pure gold and the outside commercial dross, or the labored effort at production. And, of course, such a division of inquiry would meet the person who really wished to know as well as the person who wished to have a polite acquaintance.

Mr. Sturgis has shown in various parts of inquiry the difference between the artistic and the commercial handling of artistic work, and he has never forgotten that the limits will overlap, at times, in the manner, for instance, of the little productions, Japanese common stuff, which is almost void of personality, and which seems naturally to us a little better than it really is, because of our lower habitual standards. Of course, in the production of wearing material, paper hanging, etc., indeed, this overlapping is part of the question. But it goes very far into distinguishing the excellences in what are called the "applied arts." And more especially in the higher forms of decoration.

Some thirty-two or thirty-three years ago, when I used to see something of Mr. Burne-Jones, since then Sir Edward Burne-Jones, he complained to me of the gradually commercial appearance of much of the work for which he gave designs, in this case his stained-glass work. Being an American and fearless of conventionalities and the respectabilities that darken wisdom in some parts of the Old World, I told him that the reason was very simple to an American. Some of us were among the admirers of his early work, and we could remember that when it began he, himself, took an interest in seeing it carried out. But that since then he had put it into commercial hands, and that the result was evident. Even if Mr. Morris's firm did the work, Mr. Morris himself would be away, and the work carried out in the usual way—each process taking away from the original intention, which must have been to make a work of art. Now, a work of art which can be reproduced by various hands indefinitely is no longer a work of art. This was then the case of his work, and, in fact, though I had no need of establishing it with him, it was the case of almost all English work of a similar kind, that is to say, decorative work; the commercial impress of the nation was upon it everywhere. This, of course, is not a condemnation, it is merely placing the position clearly before persons interested in art. Just as at a moment before, I appealed to my reader here concerning the advantage of a division of the original and the second-hand, or much-repeated.

As Mr. Sturgis would or might explain in his pages describing lace, our ladies do not accept machine-made lace, which can be indefinitely repeated, as the equivalent of the hand-made lace. In our wall decorations, our stained glass, and so forth, even in houses costing millions of dollars, there is rarely enough such distinction. And I have sometimes had to plead with the multi-millionaire for hand-

work, when, to his mind, the machine-work would be better, as being done quick. But, of course, we cannot entirely escape the taint of what is around us, and it will only be for our best men, our decent architects, our good artists, and the more refined public, to prefer the work that is of higher grade, impossible of reproduction, to the thing that can be done in quantity. Our women see that more or less, and nothing would persuade a lady of fortune and good taste to buy her gowns ready-made, in a department store, when she can go to Pacquin, and Worth, or some personality of that kind. But, of course, for woman personal adornment is the question, and that is accepted. The features of the higher forms of art are not so visible to her, and, in fact, they might at times be annoying. As I have known a lady of great wealth prefer a cheap leather paper to Venetian leather, because of her not wishing to be *singular,* and her desire to have her great room look like her friend's, Mrs. So-and-So, a little higher in the social scale, but not so rich; or as, when I was a boy, Beethoven and Mozart were thought not fashionable, and consequently not offered.

Of course, in the improvement of public taste, and in the encouragement of either the artists who create, or who carry out ideas suggested to them, or encouragement to the public that wishes to know and use the best, the architect is a most important factor; with us here in the United States, perhaps the greatest factor. He is the great employer, but he is also the confessor and adviser of the employing public, and on him comes the main responsibility—as is evident—for the good and bad taste, the artistic or the commercial side of what is built and decorated. In fact, this is so evident that the joke of Mr. Eidlitz comes up to us all the time, and that is, that in all architectural matters the architectural mistakes are made by architects, which is a soothing statement, applicable to all the varieties of human effort.

But, very seriously, the importance of the architect cannot be overstated. His position is so important that the mere question of his filling it is always in doubt. He is, as indicated by this very book of Mr. Sturgis, a person who ought to know everything. If he is a busy man in his own profession, he has only at the beginning the experience of a few years of school, and on the business side he is constantly harrassed by the necessity of his being merely a business man, doing art and building together. One of the best known of our architects was telling me a few weeks ago how heavy was the following out of certain styles, because they required a great deal of drawing and personal attention; while following other styles required very little personal attention, and a constant, mechanical, commercial repetition was sufficient. How many men would stand the strain of a fortune being offered to them, on condition of doing poorer work, I do not know. But it is evident that it would be almost impossible to repeat, with our modern habits, a Greek building; we could scarcely copy one if we tried. We have so absolutely lost all notion of the personality of work in the ordinary matters. We could not understand a sculptor signing his mouldings—hardly, in fact, making any mouldings at all.

If it be that our habits are so fixed, and the future is such as I have been describing, we may then hope that an average level may be reached—well known to be nothing but a level, and that, as in Eastern countries, such and such a case will be known to be at the level, and what is above it will be considered Art.

That is the only contention that my comments are striving for, and Mr. Sturgis's book is excellent in bringing up this question, as showing us the architect as interested in all artistic manifestations in their analyses, and when understanding them, as he does his own line, then connecting them with this art of his. In fact, once or twice in the reading of some of the more important studies of Mr. Sturgis's, I have wished to see directly the application of the architect's direction exemplified. Such a connection might, for instance, clarify some of the studies in sculpture. We would then see more distinctly the ancient manner which passed more easily under the direction of the architect; without any interference on his part, only a direction, not only just

and necessary, but desired on the part of the sculptor. For instance, in the East there is still a manner of directing the mass, and proportion, and shape of the sculptor's work by the architect, indicating the planes or the general geometric form. So that he can know beforehand whether the sculptor's will fit or not into his building, and just how. That, of course, was the very simple secret of the greater past. In a smaller way, I have seen in Japan a draughtsman make out the scheme for a sculptor, upon the basis of a certain geometric form—*within which* the sculptor's form should *occur*. Let us say that it might be a three-sided slab of stone, then the figure would fill the sides of this three-sided slab, as well as the top and bottom, and so forth.

This explains also the saying of Michaelangelo, which is referred to by Mr. Sturgis, and the stories about him. To-day we do not quite realize the full success of Michaelangelo's "David." We think of it as a problem in free air, in space, and we are apt to judge it that way, and criticise it or admire it in ways that are not just. The real problem should be to cut a figure representing a "David" out of a piece of marble, of such and such a shape—a piece of marble belonging to the city, and botched by a previous sculptor. Looked at from that point of view, we are getting now to the old manner of work, and we can see Michaelangelo cutting himself into the stone, and not merely occupied in putting his arms into "mud." (This, Mr. Sturgis tells us, is the name of the clay that sculptors use.) This tendency, of course, to think of the block of marble, the mass in its shape, would make the body of artists who were sculptors certain to fall within the principles of decoration, of architectural conformity. We should think in big planes, as all big sculptors do even to-day. We see how the "divine" Michaelangelo (*"Michel piv che mortal, angiol divino"*), through eagerness and too great hope, and the impatience of old age, cut away too much of his marble to be able to finish the two great works which carry to us his last hopes and wishes. And we see also how the actual marble carries, in his work, an impression to us which we cannot get through the casts of the same.

All this, I wish that Mr. Sturgis might have added to his analyses and descriptions of work, because older work in every nation is used as a model; but even an encyclopaedia in fifty volumes might be too short a space, and this is a work of good faith, even if fragmentary by necessity.

John La Farge.



FIG. 4. THE NEW FACADE OF THE HARVARD CLUBHOUSE.
Between 44th and 45th Streets, New York City. McKim, Mead & White, Architects.
Photo by August Patzig.

Our Architectural Anarchy

The Editor of the Architectural Record:

Sir: For my sins I had to wait an hour between trains the other day at Paterson, N. J. I might have hung with grooms and porters on the bridge, in the manner of a famous waiter for trains at Coventry, Eng., if I had seen any bridge eligible for pendency, and have shaped the city's ancient legend into something or other, if I had been aware that the city had any ancient legend worthy of being shaped into anything. As matter of fact, Paterson is the descendant and representative, I believe, of a Dutch settlement, "Preakness," of the etymology and origin of which, and whether Dutch or Indian, I really do not know, was the settlement when George Washington made his headquarters there or thereabouts for some months, in a house I made a pilgrimage to see. In those revolutionary days what is now Paterson was known as the Passaic Falls. But it was a settlement which grew and flourished as a market town for the Dutch agriculturists, by whom East Jersey was so largely settled.

What struck me at Paterson, and makes me write to you is the complete architectural chaos of which I saw the evidence from the station. The chaos is no more chaotic at Paterson, very likely, than at any other American town, suburban or inland, at which a traveler, enforced to wait for a train, might be fain to pass the interval in contemplating the local architecture. But the exceptionality of Paterson is, that there was a fire there the other year which made a "tabula rasa" of a great part of the business quarter. That was long after the Chicago fair might have been assumed to have done its perfect work, and the notion of aesthetics in general and city-making in particular to have penetrated the average American consciousness. I seem to remember, at the time of the fire, having seen in the daily papers some exhortations to the business men of Paterson to seize the opportunity to get together, and reconstruct their business quarter in accordance with a general scheme. Without doubt, if they had done that, they might have furnished an object lesson of a model suburb, architecturally speaking. And being casually in Paterson, I looked about me for some evidence of the realization of this dream.

I did not find any. What I saw in what seemed to be the main street, was the kind of commercial architecture that one sees in any American town of the size of Paterson, an architecture pretentious, squalid and depressing. It is mainly depressing, one notes, by reason of the intensity of the individualism displayed in it. Each builder or, in this case, each rebuilder, does what he will with his own, does what is right in his own eyes, without the least sense of common decency or good neighborhood. And what is good in his own eyes is to make his confounded place of business conspicuous at the expense of everybody else. The great object of commercial art, Ruskin says somewhere, is conspicuousness. Naturally, one is more conspicuous the more he differs from his neighbors, not the more he agrees with them. But there is something especially nauseating about the cheap pretentiousness of the individualism of the business street of the ordinary American town. Of course the aim defeats itself. When everybody in a row is yelling at the top of his voice "Look at me," you do not look at him. You do not distinctly hear him, since everybody else is doing the same thing. You are only confused, bewildered and sickened.

Architectural historians say, by the way, that there is no such thing as a Judaic style of architecture, the traditions of Solomon's temple to the contrary notwithstanding. The saying only shows that the architectural historians do not know what they are talking about. Nobody can look at the business quarter of a hustling American town without being

convinced that there is at least such a things as a "Yiddish" style of architecture, and that it is in full possession. It is, precisely, the architectural expression of the spirit which waylays the passenger upon the sidewalk, and drags him in, willy nilly, "to look at a nishe goat." Not that the architectural solicitation is all or even mostly done by the chosen people. Most of it is done by the Gentiles. But the original note is plainly Palestinian. As I said before, Paterson is not exceptional. Our national shame is precisely that it is typical. It is noticeable only because its leading citizens had a conspicuous opportunity to improve the situation and make a decent-looking town, and tumultuously refused the opportunity. Wherefore, if another conflagration should seize the business quarter of Paterson, and consume the rebuilt edifices, nobody but the underwriters would have occasion to weep. The disinterested aesthete would hear the news, if he knew about Paterson, not only with equanimity, but with rejoicing.

But who shall blame the people of Paterson? Certainly not their architectural pastors and masters, who might have set them an example of congruity and deference, but who have, in fact, set them the contrary example of differentiation and rowdy defiance. There may be some good houses in Paterson. I know for a fact that there is a good church or so, decent and gentlemanlike, which is, perhaps, to say Christian erections. But they do nothing to redeem the terrible



FIG. 1. THE COURT HOUSE.

Paterson, N. J.



FIG. 2. THE CITY HALL.

Paterson, N. J.

Carrere & Hastings, Architects.

aspect of the place from the point of view of the casual passenger who waits for his train at the central ganglion of the trolley cars. This passenger beholds before him one of the architectural lions of the place in the shape of the City Hall, a structure some fifteen years of age which escaped the flames. He can make out behind him that there are other architectural lions, a perfectly platitudinarian classic edifice, with a cupola which, since Paterson is not a state capital, and therefore it cannot be a state house, he infallibly infers to be a court house; and an attractive piece of Dutch Renaissance in dark brown stone, which is spotted and banded with lighter stone, and with a tall clock tower. One learns, much to his surprise, that it is the post office. The City Hall evidently is the work of the municipality. As evidently the responsibility of the Post Office is upon Uncle Sam. What "administrative entity" produced the court house I do not know. Probably the county of which Paterson is the seat.

Evidently enough the court house is the worst of the three. It is one of those common places which calls itself Greek, and would have paralyzed Pericles. It is probably the oldest of the three, though it is a building of one of the few classes which, in the United States, does not date itself within a generation. It might have been built at almost any time within the last sixty years, or since the Greek revival became the official style of this republic. There are capitals and court houses all about the land dating from the forties which look just like it. What is still called the "new" court house in Manhattan, Tweed's court house, which is just about a generation of age, would have looked just like it but for the architect employed to make additions to it, who declined to complete the absurd edifice on the lines on which it was begun, and got called a "vandal" in the newspapers for his pains. The architecture of this kind consists of two excrescences, the portico and the cupola; the former projected from the edifice at the center of one side, sometimes of two, the latter purporting to crown the edifice, but tending only to extinguish it. They may be doing it yet in the back districts. This specimen is like a hundred others, excepting for the greed of room, which has deprived the portico of what dignity it would have had by projecting another building from the main building so as to fill up two of the intercolumniations and to give itself the air of an afterthought. This arrangement gives this edifice an uncouthness of its own. If one of the intercolumnar spaces had been added at each end of the wings, the portico correspondingly withdrawn, and the absurd extinguisher omitted, it would look as well as most of its class. But of course it would not in that case or in any case be worth talking about.

Evidently the City Hall is entitled to very different and much more respectful consideration. It is a well-studied design, apparently by a very recent graduate of the Beaux Arts; an educated and discreet work, in the then last mode of Paris, as smart and modish as you please. It would be perfectly in place as a mairie of a Parisian arrondissement or as the Hotel de Ville of a French provincial city, in which capacity I seem to have heard it alleged that it had already done duty before it was executed as the Hotel de Ville of Paterson. In a French city it would be free from the tangle of telegraph wires, which form so exasperating a foreground for it where it is. But these are quite the only incidents that denote even the hemisphere in which it is, in fact, erected. There is absolutely nothing in the architecture to relate it, I will not say to its actual surroundings, for there is nothing in them to which anybody could conform, but to any surroundings which can be conceived as growing up about it where it is. There is not a horse in the county of Passaic that would not shy at it. Paterson has been known to call itself "the Lyons of America." But the American Lyonnais and the French Lyonnais would regard this edifice with equal stupefaction, the one by reason of its intrinsic character, the other by reason of its alien surroundings. What, in fact, is it doing in this galley?

My compliments, meanwhile, to the Supervising Architect of the Treasury, under whose supervision the post office



FIG. 3. THE TOWER OF THE POST OFFICE.
Paterson, N. J.

of Paterson was erected. The prototype, the old meat market of Haarlem, will of course be recognized by everybody. It has been the motive on which many American architects have executed variations, Mr. Gibson in the new Collegiate Church of Dutch origin on the West Side of Manhattan, Mr. Hardenbergh in a picturesque office building within the limits of the old Dutch settlement thereof, both very successful in their several ways,—and I noticed a reproduction of it in little, the other day in Princeton, where it takes its place with excellent effect. A French traveler in Holland calls it "a Spanish and Hindoo edifice," but, in fact, it is commonly recognized as the flower of that Renaissance of the Low Countries which is common to all Northern Europe, which the present generation of British architects seem to be well advised in taking for their point of departure for the rebuilding of London, which is as recognizable in the Bourse of Copenhagen as in its native land. This, one may say, is what the earliest Dutch settlers of East Jersey "wished to say" in the stone farm houses of which so many yet remain, would have said if they had had money enough and brains enough. One can imagine a benevolent despot, if Paterson had a benevolent despot, assisted by the "genius loci," if the locus had a genius, taking it as the style of his adoption. For, note well, Renaissance though it be called and chronologically be, it is distinctly an architecture of craftsmanship and not of formula, and has a vernacular and home-bred as distinguished from an academic and exotic air. The Passaic county agriculturist will not stare and gasp to behold it, nor will his horse shy at it. It belongs, even though nothing else belongs. It remains to be seen whether the evangelist has preached his gospel in vain. In any case he has preached it faithfully and with unction. And his work, it is to be noted, is by no means one merely of reproduction. In general, one dislikes to see the weaker color in a building coinciding with the stress of structure, although, in opposition to this dictum, Richardson used to maintain, with his customary vehemence, that it was perfectly feasible to make an artistic front of black marble "trimmed" with white. In fact, though, his own essays in that direction, as in Austin Hall, were not, so far, among his chief successes. But in this present case, the



FIG. 4. THE POST OFFICE.

Paterson, N. J.

sparkling spottiness which is the result of the disposition of the "trimming" is of the essence of the effect, and the contrast is not less successful nor more striking between the light and dark stones of this present edifice than between the red brick and white stone of the Dutch original. One really cannot make, out of a rectangle with a gable at each end, all that is required of a double rectangle, including a porch at one end, and a wing at the other, and make a success of the expansion, without taking some thought on his own account. The architect of the post office at Paterson has taken that thought to very good purpose. And, to bring his double rectangle together and to bring it into unity and subordination he has perceived the need of some central and dominant and unifying feature. This, it will be seen, he has found in the central clock tower, for which his exiguous original furnished him with no precedent whatever, but which he had to do out of his own head. I think it will be agreed that his own head was equal to the demand thus made upon it. The clock tower does fulfil the requirements made of it as a reconciling and dominating feature; and the clock tower is an effective and pretty thing, considered as an object by itself. It is quite in keeping with the style, which does not furnish any precedent for it. The rounding and quoining of the angles, the monochrome of the shaft, the banding of the belfry stage, the pinnacles at the base of the spire and the placing and design of the spire lights in its upward progress:—all these things distinctly "belong," and all these things are the work of the modern reproducer. It is really excellent work, and always and all the more excellent for being so in keeping, not merely with the original motive, but with the surroundings, apart from the Greco-American and the Greco-Gallican, which made the original eligible for the shire town of one of the counties of East Jersey.

One hopes some successor will perceive what the architect of the Paterson Post Office meant. Even so, Paterson, in its private building, and equally in its public building, is, I repeat, a terrible sight, and all the more terrible, all the more an awful example, for not being exceptional but only typical. Paterson has a bad name as the nursery of political anarchism. It deserves a bad name as an abode of architectural anarchism. To look at its commercial and public building is to recall those famous words of Mr. Labouchere's American in London: "Sir, hell itself could not be successfully conducted upon such principles as those."

Sadly yours,

Criticaster.



FIG. 1. NORTH CHURCH AS IT IS.

Boston, Mass.

Paul Revere's Old North Church

Little Italy in lower Boston is not so bad, except that it threatens the historic veteran of the once aristocratic North End. The "Dear old North" of the long-ago Dr. Crosswell, one-time rector, Christ Church, by modern preference—otherwise the North Church, sacred to the memory of Paul Revere's lanterns—is in serious danger of extermination.

More than twenty years ago I was commissioned by a magazine to write up Boston's Old North Church, and found it rather cheery work, for, though it had gone through a decade or two of hard times, there were material signs of betterment to report. Being in Boston again the other day, I wandered into North End, wondering how the promises had materialized.

O Little Italy! Garlic, sausage and macaroni! Good enough for a shift when one is short of everything but appetite; but as environments of sacerdotal antiquity—Lutheran! Catholic! anything but Episcopal.

Except the sub-let Old Statehouse, it is the oldest public building in Boston. In its silver-grey and graceful dignity it stands as firmly on its feet to-day, and fresh, as any of its ilk—with the superlative charm that it has retained its pristine atmosphere, and is still an active House of God, in the creed and fashion of its founders. Very little about it has changed since its patriotic communicants locked the door on their too Tory rector, consigning the key to Robert Newman—whereby he had it, and used it that same night for the hanging of the lanterns—or since Major Pitcairn stormed and swore in its shadow, and General Gage watched the first battle for freedom from its spire, and LaFayette stood by the altar, admiring the bust of his old friend, Washington.

The "ring of bells" chimes for Little Italy to-day as melodiously as it did for great North End, a century and a half ago. The organ, almost as old—almost as young—is as fair and free to respond. The self-same pulpit, in the chancel and nave unchanged, extends the prayers of the founders. And so it should continue, world without end, through the intervention of some wise philanthropist. It's a pity, this talk of surrendering, before the alien inroads which are rendering the parish too weak to sustain itself. For, while the children listen to hear of the midnight ride of Paul Revere, men and women are growing up, who will feel no less the thrill, when they stand in the belfry arch, above the still-living church. Real relics of America's heroic age are quite too few to be lightly left. There's a gloomy example of living death, in the skeleton of the Old South Church, which the women of Boston have made such brave efforts to preserve, sticking its no longer sacred nose out into Washington Street; nothing more than an old curiosity shop.

We come suddenly upon the Old North, from narrow streets, full of the chatter of foreign tongues and the aroma of foreign condiments. Its massive walls, laid English-bond, are there to stay. The sturdy sash in the eighty-five paned windows, hold much of the very glass which was set in their keeping near two centuries ago. The entrance, through the square base of the spire, is not up to modern notions, because it belongs to days when straight was the gate and narrow was the way. Above it is a bronze plate set there by order of the City of Boston. It marks the end of a long controversy, which was finally carried to the Legislature and settled there, asserting, forever more:

"The signal lanterns of Paul Revere, displayed from the steeple of this church, April 18, 1775, warned the country of the march of the British troops to Lexington and Concord."

I found the front door bolted—with the same old ten-by-twenty-inch machinery, the key-hole almost large enough to crawl into—but the church has been forced to cultivate every pos-



FIG. 2. GENERAL VIEW OF THE INTERIOR OF NORTH CHURCH.
Boston, Mass.

sible revenue, and a sign, on an alley, tells us how to find an open vestry door, where is an official guide, ready to sell no end of souvenirs and show the church.

The Sunday-school room, which we enter from the alley, is narrow and long, for it was only patched on, with what room was left, across the back of the church. But there was convened the second—quite probably the first—Sun-



FIG. 3. NORTH CHURCH AT IS WAS.

day-school in America; and it is still in active service. Only, between times, it is now transformed into a souvenir sales' shop. Beyond it, we enter the church—the little Colonial oblong, fifty feet by seventy-five and thirty high, surrounded by a deep gallery, the organ opposite the altar. Everything was as it if were yesterday when I saw it—not a quarter of a century ago. It seemed to take me back, and make me young again, for the time being—young as the old, unchanging church.

It strikes one oddly, at first glance, being so out of the sacerdotal fashions of the day; but look again. Wait a little, till it grows on you. Inimitable grace. Absolute harmony. He who seeks the perfection of church architecture will find it in this little Colonial oblong, buried in Little Italy, in lower Boston. There is no internal evidence to discredit the claim that it is the work of Sir Christopher Wren. In fact, without the claim, one who knows the masterpieces of the great architect would feel it instinctively. The consideration which has made the contention a laughing-stock is the poverty and impecuniosity of the founding fathers, who, for example, because the first organist, after donating his services for a year, asked for a small stipend, sent, forthwith, to England, for a player of organs who had some trade, preferably a barber, that he might make his living at it, through patronage of the parish people, and play the organ for nothing. Such cupidity precludes the proposition that the early worthies paid his price to Sir Christopher Wren; and while Sir Christopher did many magnanimous things, it is hardly probable that he presented the plans to the embryo parish with the condition that the fact and his connection with them be kept a secret, only to creep into legendary lore in ages unborn. But here is an explanation that explains, and I hold it in firm faith as the truth, the whole truth, and nothing but the truth: The Old North Church is identical with St. Anne's, Blackfriars, England. St. Anne's is one of the ideal miniatures wrought by Sir Christopher Wren. It antedates the Old North not many years, and two members of the original Old North parish came from St. Anne's parish, Blackfriars, England, over to the New World. There is much evidence extant that members of the North End clique were not over-scrupulous about some little things, in those great days, and I think it only requires the facts—which of course can never be obtained—to add the surreptitious borrowing of the plans of St. Anne's for the North Church of Boston. So much of glory has hung about the church as the holder of the spire that held the lanterns for Paul Revere, that the rest has been

neglected. But I believe it to be a fact —a most important fact, too—that we have, right in the Hub, one of the finest examples of Sir Christopher Wren's mastery in architecture. To save the fee, our worthy sires secreted the fact. Therefore is there no record.

In this same pulpit, there have stood all of the good and great since the day the church was dedicated. It was higher up in the air, then. It has gradually come down from a level with the gallery; necessitated by the high-walled pews which were then in vogue, giving the preacher a chance to look over into them. The heavy Prince-of-Wales feathers, which now form the base of the pulpit, were once the suggestion of a canopy over the reading desk beneath it; and under that, again, there was the clerk's desk. The pews are not so high-walled now, but they are primitively straight-backed still. Sit for a moment in one of them, and verily you will think yourself in the lap of old Colonial days.

Opposite the altar, in the front of the organ gallery, is a clock which has been ticking there since 1726. On either side of it are—what on earth are they? On spindling minarets there stand four chubby things, holding long trumpets to rosy lips, with puffed-out cheeks. Behind them, very small and solid, are many-feathered wings, thrust through heavy folds of drapery. Drake, in his "Memories of Boston," calls them Cherubim. Heaven knows—they may be something of the kind. Their record, too, is incomplete, for they were consigned to a Roman Catholic church in Canada, on board a Spanish vessel which was captured by the Queen of Hungary, one of the pirates of the high seas, by which our forbears used to profit, under letters of marque, as privateers. The Queen of Hungary was commanded by Captain Grushae, who was also a vestryman of the Old North, and as these winged trumpeters appealed to no one, in the division of the spoils, the good captain turned them over to the church. I'm thinking it's rather a pity that the Spaniard did not escape the Queen of Hungary.

Half-way up the height of the organ there is a narrow and almost invisible gallery, clinging to the rear wall. It is entered by a small door from the way to the belfry. A quarter of a century ago, in faith believing, the old sexton of the church told me that this was the "Slave-pen." They had such things in the old days; where white souls, lodged in black bodies, could sneak in and catch the crumbs. It is only a floor, a front and a single plank set against the wall. I tried to sit on the plank—as one slips, if he can, into an empty throne or into a great preacher's pulpit, to feel that he, too, has been there—but my knees bumped badly against the front before the deed was half accomplished. I pitied the poor slaves, and wondered how they did it, long ago. Since then a saving light has illumined that gallery; but I heard the official guide telling the same old tale to a band of lady delegates from a Christian Science convention, as I wandered, this time, in the nave. I am sure that he knew better. He probably considers the exhibit too effective to discard; but for the honor of the Dear Old North, I pray you remind him, if he tells the same to you, that the signal-lights of freedom hung from the spire, and that slavery was never recognized by a slave-pen, beneath it. The gallery was built no longer ago than seventy years. A letter has recently been discovered concerning it, written by a warden to the superintendent of the Sunday-school. Till then the children had been quartered, during services, in the gallery nearest the pulpit. The letter says:

"You told me, if I built the gallery, that it would take all of the children from the minister's ear and relieve the church of the nuisance."

The poor little slaves. No wonder my knees were bumped.

To the right of the altar, in a space which once was a window—the window through which Newman crawled, after hanging the lanterns, because, meanwhile, some red-coats had come lounging about the door—there is the marble bust of Washington. Like pretty well everything about the church, its authenticity has been questioned by jealous



FIG. 4. THE NORTH CRURCH—DETAILS OF THE INTERIOR.



FIG. 5. NORTH CHURCH—DETAILS OF THE INTERIOR.

ones. Indeed, it is rather difficult to recognize, at first, Stewart has so impressed us with florid youth and square-set jaws, out-strained by badly fitting false teeth. There is ample evidence, however, that at the time of its production it was considered an excellent likeness. It was loaned to the City of Boston and carried in the procession at Washington's funeral. It was commented on by LaFayette, not only at the time of his visit, but in a letter afterward. It is the face of an old man, without the teeth, but strong and bold, and full of energy. After a moment's acquaintance we find in it all of the cardinal points of Stewart's Washington, and other traits which Washington possessed, that we miss in the Stewart face. I heard the guide telling the Christian Scientists that it was made from a death mask. Obviously this could not be true, for he told them next—what was true—that it was carried at the head of the Boston procession, at Washington's funeral.

At the back of the altar there is a conception of the Lord, breaking bread, by Penniman. It lacks in manipulation, but in thought it is a masterpiece. It repays a visit to the church—that face alone. Then the church service has a volume of interesting history. Many of the pieces were presented by King George. Some were cast from the coin contributions—silver and gold—made at the weekly offerings. They have all been pawned, more than once, for the church debts, and once the entire service was—confiscated by an irate warden who had it in charge; hidden, and in his death lost sight of altogether. Years



FIG. 6. NORTH CHURCH—DETAILS OF THE INTERIOR.

later it was discovered by Philips Brooks, afterward bishop, stored in the vault of a jewelry house.

King George also presented the church with several prayer-books, and a large Oxford Bible of the print of 1717, which has become famous among bibliographers as the "Vinegar Bible." They are all on exhibition now in the Sunday-school room.

After the church, the crypt and belfry remain to be seen. Choose the belfry first, I warn you; for one hardly feels up to much, after the crypt—and the belfry is very much up—while, anywhere, "Facilis descensus Averni est." The way is narrow but not straight, up to the bells. It twists about by all manner of treads and risers, dodging great oak beams and slipping through shadowy holes, in and out the ringing room, where eight ropes come down, and through the bell room above it, where the bells are so thick that one must climb edgewise between them, up through the famous chime. Drake says that these bells have the power to dispel evil spirits; so have a care, in going up, if you possess any which you particularly prize. Each bell bears some message in its casting. The first reads:

"We are the first ring of bells ever cast for the British Empire in America."

Above the bells is the belfry arch. The upper part of the spire blew down, some hundred years ago, and is only supposed to have been replaced upon the same lines and with much of the same material by Bulfinch. Curiously enough, the only record of it all, after being carefully written up, was sealed in the metal globe, on the top of the spire.

Now then, the crypt. Down into the dark cellar, where an old man waits with a huge bit of candle, giving a particularly small flame, to light—no, not the way. That remains a dim uncertainty to the end—the bones! There are thirty large vaults in the crypt. Most of them are filled to the limit, with coffins of all sorts and sizes. One gets an impression that they were thrown in rather helter-skelter, towards the end. There are plain pine coffins, with wooden pegs. They have held together best of all. And there are rose-wood and mahogany coffins, silver mounted. Some of them have almost deserted their occupants, making very interesting exhibits in the flicker of that ghastly candle-flame.

Sometimes a stray and narrow shaft of sunlight finds it way through a crack in the dust on a small cellar window above. It pierces the darkness as far as it dares, and, in its light, see the little flecks of white dance up and down. One need not watch for long to see them start off with a rush together, and disappear. They will all come back again and go on with their dancing; but what makes them do it? Do you suppose that the ghosts of those dry bones go wandering up and down the darkness, watching out over their last remains?

When you breathe the air above again, you can go on, if you like, to Copp's Hill, the old Colonial cemetery. It is only a step, and is mostly above-ground. Among other things it is rife with memories of Cooper; the grumblings of poor Job, the warnings of Polwarth, the blessings and cursings of Abigail over her idiot boy, and of Lional Lincoln. Go there and dream.

Willard French.

Building the New Campanile

The preservation of objects of beauty is a matter of present-day importance, and the efforts of modern art and science to retain intact the products of the past which represent the highest achievements of another age have been generally successful. In only a less degree has been the recognition of the need of preserving buildings and statuary of purely historical interest. Sometimes the crude and ugly are thus preserved, but the historical associations which cluster around the commonest structure may fully justify the expensive work of checking decay and ruin.

Next to the preservation of articles of historic and artistic worth is their complete reconstruction. If this can be done while the object is fresh in the mind, with full data and information at hand concerning the minor details of form and character, the results have intrinsic value for present and future generations. In this particular the reconstruction of the Campanile of St. Mark's at Venice is a matter of world-wide interest. The fall of this historical structure on July 14th, 1902, was a calamity which artists and architects fully appreciated. It emphasized acutely the inevitable disintegration and decay of the best works of art. The destruction of the campanile, however, enabled architects and engineers to make comparisons with the methods of construction in vogue in the tenth and eleventh century with those generally adopted to-day. Whatever may be said about the wonderful progress of architectural engineering of the present century, it must be admitted that the builders of the Middle Ages worked according to their lights with remarkable skill and ability.

The Campanile of St. Mark's at Venice was begun in the tenth century, and completed up to the belfry about the middle of the twelfth century. This latter was finished in 1517. Brick was used in the construction of the campanile from the level of the piazza to the belfry stage, and the belfry and surmounting pyramid was of marble. The total height was 323 feet, with the base 42 feet square.

The total weight of such a companile was enormous, and the foundations should naturally be sufficient to carry at least one-third more tonnage than was actually demanded. However, recent investigations of the foundations show rather conclusively that the foundations were the weakest part of the structure, and that here rather than in the building itself the early designers made their mistakes. No architect of to-day would think of building such a tall, heavy structure on such insecure foundations as supported the campanile in the great square in front of St. Mark's Cathedral.

The reconstruction of the campanile was decidedly upon shortly after its fall, and the ceremony of laying the foundation-stone of the new structure was performed on April 25th, 1903. The work since then has been carried on more or less rapidly every day, and the foundations are now nearing completion. The shaft itself will be constructed this year, so that by next summer a fair estimate of its likeness to the old campanile can be obtained by summer visitors to Venice.

The foundations of the old structure was found to be very insecure for a number of reasons. The area of the foundation extended only four feet beyond the spring of the shaft. Piles of white poplar had been driven into the clay to a considerable depth, and on top of them a platform was laid consisting of two layers of oak beams. The foundation proper was then built on this platform. Various kinds of stone were used for this work, held together by mortar and shallow-biting clamps. There were seven courses of these stones, and below the sea level the mortar was found in very poor condition. It had in most instances completely lost its cohesive power. On top of this

foundation of stone the base was built, with five courses of stone set in stepwise. The distance from the platform to the top of this base was sixteen feet. Owing to the hydraulic thrust the whole of this foundation was raised one and three-sixteenths of an inch when the weight of the tower was removed by the fall.

The construction of such a tall, slender column of masonry is as much an engineering as an architectural problem, and before the new plans for reconstruction were adopted experimental borings were made. It was found that the square on which the campanile rested was carried on a thick cushion or bed of compact clay. This sand bed was pierced by the wooden piles. Below it was a deep stratum of watery sand. If the borings extended below the clay stratum geysers of water belched up from below, and the piles gradually lost their carrying power. It may have been that the early builders ascertained this fact and took particular care not to go below a certain level.

In deciding upon the foundations for the new campanile the condition of the soil had to be taken into consideration. It is possible that the unfavorable soil was partly responsible for the adoption of the plan, which is a compromise between removing the old foundation entirely and building on it without material change. The old foundation is simply enlarged and strengthened, and thus the early work of the builders is preserved underground as well as reconstructed above.

The method of rebuilding or strengthening the old foundation was to excavate around the stone base to the level of the pile heads. This ditch was about sixteen feet deep and twelve feet in width. When the excavation was finished, and the old piles carefully bratticed, piles were driven into the subsoil to a considerable depth. Although white poplar piles were used in the early construction, and many of these showed remarkable preservation, it was decided to use Cadore larchwood for the new campanile support. About 3,076 of these piles were cut with the resin in them, and at an average of eight inches in diameter. Larchwood with an abundance of resin resists decay much better than most woods when buried in clay.

The piles driven in the ditch around the old foundation were thirteen feet in length, and when driven to almost absolute resistance they formed a total strength equal to a carrying power of 90,000 tons. A remarkably wide margin of safety is permanently established thereby, for the estimated weight which they will have to carry is not more than 20,000 tons. The foundations of the campanile were thus enlarged in area to something like 240 square metres.

The driving of the piles was slow and primitive work. Instead of adopting modern steam pile drivers, the contractors chose to use the old hand-rope and pulley and weight. Driving over 3,000 piles by this method required nearly ten times as much effort as by machinery, and nearly ten times as many days. The last pile was driven and cut off square a year and a half ago, and work was begun on the new platform. This was laid over the old platform, and the union of the new and old was made with considerable skill. Two layers of Montello oak beams were laid across the pile heads. The lower layer was placed parallel to the sides of the foundations, and the upper layer was run across. The platform layers were fastened together with wooden pins of dog-wood, a peculiarly hard and valuable species found in Italy. The interstices of the platform layers were filled with best Portland cement and porous Monselice stone. By bonding the new and old platform resting on the heads of the piles, the old foundation is relieved of a good deal more than half of its load, and the question of strength is permanently settled so far as this portion of the new campanile is concerned. In fact, the old foundation, while preserved intact, is practically limited to a nucleus around which the modern one is constructed.

The masonry work on top of the wooden platform is of more interest to the architect than the pile foundation, but it has been carried on with the same regard to modern engineering necessi-

ties. Strength has not been sacrificed at any step in order to preserve any sentimental feature of the structure. Faithful reproduction of the original campanile, however, has been required throughout, and the two ends in view have been obtained through a satisfactory harmonizing of details.

The first courses built on top of the wooden platform are composed of massive blocks of Istrian stone. This stone is of special value, both by virtue of its compact grain and beauty of coloring and appearance. It resembles marble in many particulars, and can be highly polished. Its crushing strength and compactness of grain render it of great value for a work of this kind. The stones were cut in the form of parallelopipeds, and carefully laid in courses and cemented permanently in the finest concrete mortar. The stones were bonded into the old foundation to the depth of six feet, and they were stepped in from the external limit of the new foundation. The blocks were cut in size of nine feet and nine inches long and four feet and seven inches wide. There are eleven courses of these stone blocks, and they are so bounded with the old that the weight is evenly distributed.

From this blending of old and new foundation the campanile proper will spring. The construction of this latter will contain points of special interest both to architects and engineers, but as the campanile will always be on view, while the foundations will be covered up, a description of the latter is worthy of study. In this work the primitive methods of construction may strike Americans with special force. Even the heavy stones for the foundations were carried from the quarries to the mole in barges, and then carried up the length of the piazzetta with wooden rollers and ropes. They were then slowly hauled by hand block and tackle to the foundations. Sentiment was partly responsible for this, as it was believed that nearly the same methods were employed by the builders of the original campanile.

A S. Atkinson.



THE SIGN OF PAUL REVERE.



THE NEW WANAMAKER BUILDING.

Philadelphia, Pa. D. H. Burnham & Co., Architects.

NOTES & COMMENTS

THE EDUCATION OF A COLONIAL CARPENTER

I have been lately getting some new light on a subject on which I have long lain in darkness, and I hasten to share its beams with the readers of the Architectural Record. Nobody, I suppose, who considers the work of the colonial period in America can have failed to wonder from what literary sources the work of those artisans was derived. There were no architects in any modern, or in any distinctive sense—distinguishing them, that is to say, from craftsmen. It is necessary, of course, sharply to distinguish the politically from the architecturally colonial period. The former ended, say, in 1783. The latter endured certainly until 1830. During these two generations, while we were politically emancipated, we were architecturally provincial, following the latest British fashions in this as in all the social arts, and absurdly sensitive, for even a good while longer, to the opinion of the "metropole." In fact, it was only about the middle of the nineteenth century that the American carpenter became really emancipated, and began, in Emerson's phrase, to "trust himself." Also in Emerson's phrase, his buildings began to "vibrate to that iron string." Terrible buildings they were, as their melancholy remains attest. They were not Bourbons, those terrible jig sawyers. Not Bourbons because, while they had learned nothing all right, they had forgotten everything. It was only when the book-learned architect came in to repair the ravages of the unbook-learned carpenter, that we began to get again the architecture we had lost with the disappearance of the book-learned carpenter.

The carpenter had by no means been book-learned from the first. Jefferson's "Notes on Virginia," published in 1784, had been written in 1782, the year of the Independence of the United States the minus oneth, in point of fact, though the sixth according to the Declaration. In that famous chapter, in which Thomas declared that "the genius of architecture seemed to have shed its maledictions over this land," Thomas also complains that it would be difficult to make an "attempt at elegance," since "a workman could scarcely be found capable of drawing an order." But Jefferson was a Virginian, even then engaged in the beginnings of Monticello, and Virginia was already remarkable among her sisters for "the scarcity of handicraftsmen." He might have secured his prize, perhaps, in Pennsylvania, though, in fact, the colonial buildings of Pennsylvania, the public and pretentious buildings, were the work of amateurs and cognoscenti, as Christ Church, in Philadelphia, of a Dr. Kearsley; Independence Hall, of Lawyer Hamilton, and so forth. Jefferson, as an amateur and connoisseur, might have been expected to acquire this particular accomplishment for himself, instead of clamoring for a "workman" who had it. But doubtless he would have had some trouble in finding his thus accomplished workman in any one of the colonies.

How are we to account for the fact that the workman who could "draw an order" was a rare bird in 1782, and even ten years afterwards, when a physician and "elegant amateur," Dr. Thornton, made the prize design for the Capitol, or divided the prize with a professional architect, while, a few years after the beginning of the nineteenth century, there was so plainly an abundance of workmen who could draw an order. The obvious explanation is that, during this interval, somebody had introduced manuals, from which workmen were able to derive the rudiments of an architectural education, as architectural education was at that time understood. The inference is so obvious that for a good many years I have been inspecting old book stalls in the hope of coming upon one of these manuals. I have never succeeded in landing one in my cursory quests. But an antiquarian friend with more patience, to whom I had confided my belief, has promptly confirmed it by producing from his stores two of the manuals on which the colonial carpenter unquestionably relied, and they are before me now, two quartos in old calf, 10 × 8. One is "The Practical House Carpenter, or Youth's Instructor, containing a Great Variety of Useful Designs in Carpen-

try and Architecture, the Whole illustrated and made perfectly easy by One Hundred and Forty Eight Copperplates, with Explanations to Each. By James Pain, Author of The Practical Builder and British Palladio: The sixth edition, with additions. Philadelphia. Printed by Thomas Dobson, at the Store House, No. 41 South Second Street. 1797."

The British Palladio evidently intended his work for home consumption. Apparently Dobson bought the plates "as is," and merely reprinted, or perhaps even imported the sheets and put his name to them. For the work is not at all adapted to American wants, and one even notes a design "For a Gateway to a Nobleman's or Gentleman's House," at a date when a Nobleman's house had become unthinkable in Pennsylvania. In truth, the designs which make up the bulk of the volume are of houses much too elaborate and costly to be available to the Pennsylvanian carpenter, or to any other variety of the then American carpenter. But the book can have done no harm to any carpenter of that period. To a certain chosen kind of carpenter it may have done great good. It would have given him, among other things, "The Five Orders laid down by a new scale," and to draw the five orders over and over again, by any scale, would have done the American carpenter of 1797 no harm, and would even now do the promiscuous American architect, much more the promiscuous American "architect" no harm. The orders, partly foreign to Vitruvius, but wholly familiar and domestic to the British Palladio of 1797, are, of course, the "Tuscan," the Doric, the Ionic, the Corinthian, and the Composite, which last, in James Pain's version, is of a special queerness, being a kind of shallow mockery of what we moderns know better as the order of the choragic monument of Lysicrates at Athens. The ambitious young American carpenter, for whose instruction and benefit the reprint was intended, must mainly have derived from the study of it a nation of the superior opportunities of the British carpenter, whose usual employ must have seemed to him the designing of "seats" and town houses beyond the dreams of any but a trivial fraction of the citizenship of the United States.

The other manual is evidently far more practical. Its title page is worth transcribing in full: "The Young Carpenter's Assistant; or, a System of Architecture. Adapted to the style of Building in the United States. By Owen Biddle, Housecarpenter and Teacher of Architectural Drawing. Philadelphia. Published by Benjamin Warner, and sold at his Bookstores in Philadelphia and Richmond, Virginia. William Dickson, Printer, Lancaster, Pa. December, 1817."

What number of edition this of 1817 may be I have no means of knowing. But the copyright notice on the next page assures us that the work was originally entered, according to act of Congress, in July, 1805. The special illustrations at the end might all have been prepared for the first edition. The Bank of the United States, "by Samuel Blodget, of this city" (1795), the Bank of Pennsylvania, by Benjamin H. Latrobe (1799), Christ Church, Philadelphia, already two generations old, and the wooden bridge across the Schuylkill, with a central span of 194 feet, in which, although the conception seems to be mainly that of "Timothy Palmer, of Newburyport, in Massachusetts," "the Editor" bore a not too modest part. But these things are given as exceptions. The rule is the proposition and solution of problems within the ordinary purview of the "Young Carpenter" to draw the orders, "the proportions of which I have taken from Pain's work, with but little variation," though they have shrunk in number to four, by the omission of the Composite, "to describe an ellipsis with a tramel," "to find the form of raking cornice which shall mitre with a level one, with the return at top for an open pediment": these things, and the like of these things, are, in the words of Owen Biddle, "some of the most useful geometrical problems which every carpenter ought to be acquainted with." For the solution of all these problems, Owen, at the beginning of the nineteenth century, gives aid to the otherwise self-instructed but ambitious "Young Carpenter," for which, one infers, the young carpenter would be long and far to seek for instruction at the beginning of the twentieth.

The inference carries much further. The young carpenter of the beginning of the nineteenth century was, one goes on to infer, an educated man, trained to reason about what he was doing. He was the kind of mechanic who would naturally develop, by the mere force of his schooling in these exercises, into an architect, and not by any means, as now, if at all, into an "artchitect." His taste was cultivated as well as his reasoning powers. The classical examples of success in his handicraft that were presented to him in this manual were really classical examples. We laugh at them now for their narrowness. But we can laugh at them for nothing else. These old-fashioned examples, to which our newest-fashioned designers nevertheless recur, were of a single set of forms, accepted by all concerned as inveterate and final. But all the same, to know them was a liberal education

for the embryo architect that every carpenter was then, for the embryo carpenter, one may almost say, that every "artchitect" is now. Looking over these "geometrical problems" that constitute the bulk of Owen Biddle's book, one asks himself how many carpenters are there now alive in this favored land who could solve them. How many who could read, with understanding, Owen Biddle's book? In remote New England villages, "in deep wet ways by gray old gardens," perhaps here and there one. In that case, one explains to himself why the social and civic status of a carpenter is still so much higher there than that of the artificer whom we know in the city by the same name. This latter draws far higher wages than the colonial carpenter would ever have dreamed of demanding, and, in virtue of his membership in a rigorous trades union, far higher wages than the country carpenter thinks of demanding now. But anybody who knows the two varieties knows that the old-fashioned country carpenter is as immensely the intellectual as he is the social superior of the modern town-bred carpenter, who has been reduced to become, in his day's work, a dreary specialist whom it were juster to call an automaton, and whom no sane employer would any longer think of invoking for the solution of a practical mechanical problem. The interval is vast. The colonial carpenter was an educated and thinking being, to whom, within the sphere of his special information, the community deferred. The modern urban carpenter is the wage-devourer that we know, whose opinion no sane being would think of invoking on any mechanical question outside of his daily routine. No wonder the colonial carpenter became, by an easy transition, the architect of his time, and had no need to add that designation to the designation of his trade. He was quite, as to trained intelligence and mechanical equipment, what we now mean by an architect, while his successor is the automaton and tool of his "union." When we reflect that, for fifteen years, "The Young Carpenter's Assistant" was the vade mecum of the trade, art, or profession to which it was addressed, and when we consider what kind of technical pabulum has supplanted it with the generation of carpenters that now is, we shall find no difficulty in explaining to ourselves how the "young carpenter" of 1805, or of 1817, was so much more professional a person, and so much more respected a citizen, than the ordinary urban members of a carpenters' trade union is in 1905. The question is much larger than one of the practice of architecture.

M. S.

THE WANAMAKER STORE IN PHILADELPHIA

We reproduce herewith an illustration of the new Wanamaker store in Philadelphia, which has recently been completed from the designs of D. H. Burnham & Co. The new store only covers a portion of the block occupied by the old store, and it will at an early date be extended to include the whole block. So far as the design goes, however, the existing section indicates just what the whole building will be, and it shows some interesting variations from the similar skyscrapers most recently designed by Burnham & Co., viz.: the Wanamaker Building in New York and the building of the First National Bank in Chicago. In all three structures a certain unit of design has been adopted and realized, more or less completely, in the several facades of the buildings. In the Philadelphia store, however, the unit is constituted by two instead of three windows, as in the other buildings; and its smaller width and fewer openings bring out more emphatically the vertical dimension of the facades. The Philadelphia edifice is not any taller than the one in New York, and it is much shorter than the one in Chicago; but this disposition makes it look taller. Furthermore, the vertical dimension is also emphasized in the Philadelphia store by the treatment of the corners, which are pierced by one instead of two windows, as is the same space along the rest of the facade. Finally, the treatment of the crowning member of the building intensifies the same effect, for this division of the facade is pierced only by narrow arched openings, with much deeper reveals than those of the openings below, and the combined narrowness and depth of these openings, contrasted with the plain wall above, adds a convincing touch to the effect which has been sought. Of the three facades, the design of the bank building in Chicago is most entirely satisfactory, but the Wanamaker store in Philadelphia is more interesting than the Wanamaker store in New York. Both of these stores, it may be added, are examples of the successful use of terra cotta as the covering of a skyscraper, and both are an improvement over the design of the Fuller building in New York. It is a pity that such a spectacular edifice as the Fuller Building was not designed after Mr. Burnham had worked out more completely the advantages of his method of skyscraper design. The method has its disadvantages, but it is eminently business-like and appropriate.

JAPANESE ART AND ARCHITECTURE

Japanese art occupies this curious position with regard to the West—that we, the Westerners, admire with enthusiasm and collect with eagerness, the slighter and less significant products of that art, while remaining ignorant of the more stately, the greater and more enduring monuments. It is altogether as if some sagacious nation of the Far East should collect the character sketches and the caricatures in our Sunday papers, while knowing nothing, or very little, of our painting—while knowing nothing of our larger works in that art, as on the walls of our public buildings, and nothing of our sculpture of serious purpose. We should look with a pitying toleration on their criticisms of Western art, if they wrote any which came our way. And it is, we know, much in that spirit that the Japanese accept the admiration of our writers who call attention to the delight and charm of Japanese art. Mr. Okakura calls the glass, the pottery, the carvings in wood and ivory, the delicate products of the art which we call, by a misconception, lacquer-work, and the books with wood cuts by famous men of the past—he calls them all "playthings," in comparison, of course, with the temple paintings and the statues of the divine guardians at temple doors. And in like manner, if we were to take more seriously the writings of those people who have praised the Japanese dwelling-house for its lightness and simplicity, for the delicate and restrained sense of decoration which it expresses, we, the readers, and they, the writers of such remarks would be open to the charge of too hasty an assumption if we pronounced upon Japanese architecture from that point of view.

But few are the persons who have been able to make themselves so familiar with the spirit of Japan as embodied in her fine art, or even in her poetry and her legendary history, as to speak with any confidence of the purpose and significance of the fine art in question. Mr. Lafcadio Hearn, although not a professed student of fine art, is yet cited by every Japanese who has spoken on the subject, as the one man whose opinion of Japanese art should be listened to. and this because he became almost a Japanese in feeling. Rightly, the Japanese claim for their fine art an expressive utterance of the national feeling, even as the peoples of Europe did at certain past times of their existence. Nowadays, of course, there is no such expression of national spirit to be looked for in Western art, and this is for good as well as for evil. Cosmopolitanism has its advantages. The freedom of intercourse between nations, and the study of young foreigners in France, helps in certain ways. It will, however, not produce that unity of the art spirit which Japan still possesses, though its existence is, we believe, limited by associations with the West.

It is our business to cultivate to the full all the feeling of sympathy which we find in ourselves or in others, for that wonderful people who have retained their traditional feeling and their traditional expression of it in fine art and in poetry for so many centuries, and Mr. Ralph Adams Cram, the Boston architect, though busy with those late-Gothic churches which he and his partners design and build according to a carefully thought-out principle of action, with the reformatory zeal and the religious interest which to him are a part of the same propaganda, has yet found time to visit Japan and, during a short stay there, and by thought and observation since that time, to become a faithful and enthusiastic exponent of Japanese ideas in some developments of Japanese architecture.

CRAM'S JAPANESE ARCHITECTURE

Some of Mr. Cram's papers have been gathered from the journals in which they first appeared, and to them has been added a paper read before the Boston Society of Arts and Crafts, and four new papers. These are published by the Baker & Taylor Co., in New York, in a very handsome form, under the title "Impressions of Japanese Architecture and the Allied Arts." Now, if there is one art which, more than another, must be studied in Japan, it is the architecture of the country; for what photographs can give, even to the mind of the trained thinker upon such subjects, a full sense of the significance of wooden building carried so far toward artistic perfection? On several occasions Japanese architects and students of architecture have come to me with requests for guidance in the study of architecture in Europe and America; and it has been sad to see them here in the attempt to transplant to the Far East the entirely decadent architecture of the West—an architecture without unity, without significance, a congeries of ancient ideas misapplied in modern times. Why, if they have their very noble art, founded upon framing

in oak and embodied in the Kon-do and Ho-o-do and that many-roofed tower which we call improperly the Pagoda—why not translate it into such incombustible material as suggests itself? The permanence of the oak-wood structures has been proved—they are 600, they are 900 years old, as easily, according to record and document, as are those few stone-built structures of Europe which can still claim a comparable antiquity. But they are capable of being burned up; and that by any careless or mischevious starting of a fire in the temple grounds. To exclude combustibility would be the demand which their possessors would make for them, even as it is made to-day by the residents of our cities. And why, then, should not that framing be translated into terms of bronze—of bronze, which material is more familiar to the Japanese than to other peoples? Bronze they handle as they handle wood, with a like dexterity and sense of its fitness. Why, the very torii, the bird-perch gateway of the temple entrance, is made of bronze in one or two instances—it is made of granite also in at least one instance, and without apparent unfitness—but this would not apply to the framing of a temple, as seen from within. That system of bracketing cannot be carried out in a material like granite or marble, or other stone; but bronze, with its tenacity, its ductility, its power of lending itself to all the purposes of frame-construction, would seem to be the ideal material; and an architect with a passion for his art could hardly wish for a better thing than the permission to construct a frame building, with members of bronze. If some great millionaire would finance the undertaking and enable the Japanese to build a pagoda near one of their ancient towns entirely of metal, it would be a delightful experiment.

But this consideration carries us far from Mr. Cram's book. He, writing in the form of separate and detached essays, has been free to consider his subject from a dozen points of view, all different, all interesting, and all suggested by the immediate study of the monument. Thus, I am delighted with Chapter IV., "Temples and Shrines." Of this the first paragraph deals with that strange Western habit of mind, now obsolescent, which takes Buddhism as one form of "horrid idolatry lightly to be overthrown," and its temples as "the foolish haltings of poor savages"; and then the second paragraph deals with that worship of the jade carvings, netsukes, the embroidery and the lacquer, while ignoring (yes, and even despising) the architecture and the sculpture of the land. I will not go on to consider the paragraphs which follow immediately, because they deal with that question which is outside of our scope—the suggested Christianizing of that ancient land of the East. There follows the assertion which I, for one, cannot accept in full, of the derivation of Chino-Korean art from Greece—indirectly, of course. That assumption will need a deal of proving before it can be accepted by students who believe in the independent thinking out of problems by different people. But the discussion of the early temples as they now stand—the temples of Horiuji, Nara, Uji and Kyoto—is faultless. It is my great regret and hindrance that I have not seen them with my own eyes; but through the eyes of La Farge and Cram, Okakura and Shugio, and through the glass held up to me by photographs of all sizes and from all conceivable points of view, I seem to perceive what the wooden towers have to say. And so I venture to consider in this semi-critical way the criticism of Mr. Cram, who has seen them. It is not hard to accept, for instance, this statement with all its consequences: "In St. Mark's are tawdry anilin paper flowers against the pala d'oro. Our Lady of Chartres is decked out in cheap finery of the theatrical costumer. St. Albans Cathedral is desecrated by the Brumagem 'Gothic' of the modern Vandal, the late Lord Grimthorpe; but here in Japan, the temples themselves still remain virgin and undefiled. If a man wants to see what good art can mean and be when it is unspotted by modernism, he must go, not to Italy, or France or England, but to the Buddhist temples of Japan." Moreover, in the paragraph which follows, with its discussion of those inferior though still most attractive buildings, the temples of Shiba and Uyeno and Tokyo, and the tombs and shrines of Nikko, it is easy to accept the statements as to the exuberance of those later structures, "the apotheosis of colored and carved decoration." On the other hand, the remark which follows immediately, that all this "is beauty gone mad, and bursting beyond all bounds," is one of those statements we love to limit as being statements of opinion. You, dear reader, and I, may love an exuberant style more than does Mr. Cram. If one has revelled in Japanese decorative art for many years without ever wearying of it—I mean such graphic and such decorative art as has been transported to America, France, England and Italy, and which our houses may contain—he would have a right to say that he would accept the late Tokugawa designs with all their faults upon their head, as an immense delight

and as charming things to live with. He might say this while admitting that there is a nobler beauty still in the earlier designs, as there is also in the reliefs of the Parthenon. There, in Greece, was a beauty which Japan never attained, either in character or (it is safe to say) in nobility.

MR. CRAM'S BOOK CONTINUED

Chapter VI. deals with domestic interiors, a subject which has been treated in a practical and common-sense manner by Mr. Edward S. Morse, and is treated here from a purely artistical point of view by Mr. Cram. It pleases the reader to note that he, this latest writer on the subject, is not astonished by the severe plainness of these interiors. He does not find them uninteresting. He describes and praises, in the same breath. On page 126 there is discussion of that decoration which the Japanese affect in their interiors. The chigai-dana and the tokonoma (that is to say the two adjoining recesses—that with shelves, for small objects, and that with raised floor for the flower vase and wall for the hanging picture) are the parts which are richly adorned, though in modern houses they are left more plain. And then the custom often described by travelers, of changing almost daily the pictures and the articles of decorative art, is insisted on here with full explanation of its meaning. The kakimono which is hung to-day must have its peculiar bronze vase and special flowers set in front of it. And if this refinement of feeling which contrasts so markedly with our Western habit of lavish showering of our possessions upon our sitting rooms, be taken as an evidence of more leisure and a more tranquil life than we in the West possess, this evidence will not be rejected.

It is indeed that leisurely movement through life which Japan has put aside that she may enter into the whirling contest for a position among the powers of the earth. In short, this book is stuffed with information for those who are in search of it—with food for thought addressed to those who have some hold upon the facts already, and are desirous to draw the proper conclusions therefrom. It is one of the most attractive books imaginable. Each paper is good to read aloud to the family circle if its members have thought about artistic subjects.

R. S.

ISHAM'S HISTORY OF AMERICAN PAINTING

The historian of American painting has one advantage over the historian of American sculpture and architecture. His subject matter has a greater continuity and a more persistent significance than has the subject matter of the other arts. Neither is this advantage due merely to the fact that during the nineteenth century painting was a more living art than either architecture or sculpture. Much more was it due to the circumstance that American interest in art has been hitherto a special interest, and that the art of painting is the one that thrives best upon special patronage. If a painting pleases a single person who has the will and the money to buy it, that painting has satisfied the necessary economic condition of its production, while a few hundred men, who are willing to spend a few thousands of dollars a year upon pictures can give the same number of painters enough of a public and sufficient means of support. Sculpture, on the other hand, requiring as it does more expensive materials and methods, and depending as it necessarily must to large extent upon official patronage, has a more difficult set of economic and social conditions to satisfy, and architecture is bound to the industrial art of building, with which it cannot dispense, but which it is far from completely dominating. Painting, on the other hand, does not require very much capital; it *can* get along entirely without official recognition, and thus it possesses a peculiar independence of unkind social and economic conditions. It loses less by a divorce from general appreciation and patronage than do the other fine arts, and this independence has enabled it to preserve some life at a time when American architecture was dormant, and when the barest beginning had been made by American sculpture. Its historian has a continuous story to tell, which begins practically with the Revolution, and which is never entirely lacking in interesting material.

But this independence is, of course, only comparative. The historian of American painting would make a grave mistake in case he treated his subject too much as a special interest. The whole history of painting may be properly treated from such a point of view, but the history of American painting is inseparably connected with the general intellectual and social development of the community. Our painting has been the creature, or, if you please, the victim of alien conditions and of general ideas that were sometimes relevant and sometimes irrele-

vant. Its comparative detachment enabled it to live upon a social and intellectual diet, which for a time almost starved architecture to death; but it was none the less constantly and radically modified by the food on which it lived. It could not develop, as a well-established art should, according to a consistent inner principle of growth. It was never really sure of its footing, either intellectually or technically. The American painters have never inherited a body of pertinent ideas and established traditions which they could instinctively accept or consciously reject. They have been obliged to formulate their own ideas, and select the technical or intellectual tradition, to which they gave their allegiance, and as neither painting nor any other art can thrive when it is the outcome of a moral and intellectual struggle, its history in this country is largely the history of men who have been thwarted and led astray. They have not had to contend against opposition so much as indifference and misunderstanding, and at any particular time their work has, as a rule, been of more significance as an indication of the stage which had been reached in American artistic amelioration, than as an exhibition of happy and triumphant technical achievement. This rule is not universal. Certain individuals have escaped from its influence. But the writer of the history of American painting cannot give his story complete continuity from any other point of view.

It is one of the merits of Mr. Samuel Isham's "History of American Painting," recently published by Macmillan & Co., that it is something more than a book about American painters and their work. "A history of American painting," he says in his introduction, "should have its importance not through its description of isolated men or their works, but as a record of the growth of the country in intelligence and culture, as a part, in fact, of that 'History of Taste' which still awaits its author. The lives of the early painters have consequently been given in some detail, so that it may be seen, not only what manner of men they were, but also how they were formed by their surroundings and the sort of public to which they catered. For the same reason, an attempt has been made to note the rise and growth of the different art organizations and their social and intellectual character, and also to give some record of the foreign influences which have been brought to bear upon them. The artists have changed their ideals, but not accidentally or arbitrarily. Even when some of them seemed to be opposing the taste of their countrymen, they were, in fact, but aiding it in a necessary and inevitable advance. It is this development of painting and of the appreciation of painting which it has been the aim of this book to trace, and mention of the lives and work of individual painters has been made as they seemed to illustrate such development."

Not only, however, has Mr. Isham's point of view in relation to his material been most edifying, but he has succeeded in applying it with good judgment and with literary skill. His task was not an easy one. His is the first history of American painting, which attempts to tell the whole story, while at the same time maintaining the standards of the best contemporary criticism. He was obliged consequently to classify, practically for the first time, the work of many hundred individual painters, and to indicate their significant relations both to one another and to the prevailing tendencies in American intellectual and social life. Many of these painters are still living, and probably the most difficult of all Mr. Isham's tasks was to make his account of the work of these contemporary artists interesting, just, and at the same time, inoffensive. Upon the adequacy of his specific estimates of the great majority of American painters, living or dead, the present writer is not competent to pass; but whether adequate or not, they are certainly fair in spirit and suggestive in substance, and Mr. Isham's fundamental standards, when he is appraising either the general course of American intellectual life, or the work of individual painters, are illuminating and sound. The uninstructed reader will obtain from the book an essentially trustworthy and a genuinely interesting outline of the whole subject, while the best instructed reader cannot fail to profit by an account of American painting, which imparts so much meaning to so many details.

It has been said that the history of painting in this country was largely the history of men who have been thwarted or led astray in their work; but it must not be supposed that the obstacles and the misguidance from which our painters have suffered has been during the different periods of American art anything like a constant quantity. On the contrary, Mr. Isham's method of treatment is peculiarly valuable, because it shows so clearly that, misguided and sterlized as has been so much of the work of American painters, the movement has been on the whole towards the establishment of better technical standard and a sounder body of ideas. Social and intellectual conditions remain, indeed, extremely unfavorable to the present

day; and the union of innocence, optimism and good intentions, which forms so large a part of the American character, still bears strange and outlanding children; but the result of a survey of the whole course of American painting leaves no room for discouragement. The good American painter of to-day may still be partly sterilized by alien conditions; but he is no longer misguided. The technical standards which he has adopted are the best available; his ideas are both formative and pertinent. He is establishing an American artistic tradition which is bound to bestow upon his successors a better chance for wholesome and untrammeled self-expression. The adoption of this technical standard has not, indeed, increased his popularity. The Churches and the Bierstadts of a former generation were more generously patronized than are contemporary painters of corresponding position; but he has the satisfaction of knowing that the men who paint to-day after the manner of Church and Bierstadt have no position at all. When the contemporary painter is approved, it is for sound achievement; and there is every reason to suppose that such achievement will finally bring with it popular as well as critical appreciation. It is to be hoped that Mr. Isham's book will prove to be the beginning of a genuinely constructive criticism of American painting. It is well qualified to play such a part, and the future critical historians of the work of our painters will have to build upon the foundations which Mr. Isham has laid. H. D. C.

THE METROPOLITAN MUSEUM

Indications multiply that under its new direction the Metropolitan Museum of Art will become not only the best collection of historical and European art in this country, but also, as is equally important, a national gallery of American art. This obvious duty and destiny of the New York museum was wholly neglected under its former management, and it will require both considerable energy and a large and wise expenditure of money to repair the mistake at the present time; but it is not too late, and the new director, Sir Purdon Clarke, seems fully equal to the task. It is not too late, because a very complete collection, including typical pictures of the American painters of the past, could still be obtained at a cost which would not be excessive, particularly in case certain public institutions which now own many important canvases could be induced to hang them in the Metropolitan Museum. New York has fortunately been the art centre of the United States for fully two generations, and its public and private collections contain a full representation of every phase of American painting, except, perhaps, the very first. As to the additions to the national gallery which should be made year by year from the material offered by current exhibitions, that is merely a matter of spending with good judgment a certain amount of money. The sum need not be large—not so very much larger, indeed, than the interest on the $100,000 which Mr. George Hearn has recently donated to the museum for the purchase of American pictures—but it requires the exercise of a good deal of discretion in spending it. The pictures purchased should be selected according to the arbitrary ideas of any one man or group of men. They should be representative of the approbation of the majority of the good American artists of to-day, and it should not be difficult to make the selection on these grounds. Of course, the body of American artists is not without its divisions; but a committee that was familiar with the best work of all the best men could assuredly accumulate little by little a thoroughly representative collection—one which in the course of a generation would become of inestimable value. It looks as if something of this kind would be done, and that the present director was the man to do it. He certainly has the right ideas, and he will doubtless soon have sufficient knowledge. Moreover, if he succeeds in achieving the collection, its value for American art will extend far beyond the value of the pictures. It will give American art more dignity in the eyes of well-to-do Americans, and it may persuade some of them to spend at home more of the money which they devote to the purchase of pictures.

MUNICIPAL PROGRESS SINCE 1880

One of the most significant of the papers at the recent convention of the American Society of Municipal Improvements was that in which T. Chalkley Hatton, of Wilmington, Del., reviewed municipal work dating since 1880 in the Atlantic States. The group of improvements to which he gave first importance was that dealing with the water supply. He said that in the Atlantic States there are now 693

cities and towns of 3,000 or more population which have public water systems. Of those that are not new practically all have been largely extended and improved in the 25 years. Since 1880 there have been constructed 151 water purification plants in these States, most of them for water works operated under franchises, as if, he suggests, communities were more particular about the quality of the water supplied to them by private interests than where they have to pay the bill themselves. Next to water supply improvements has come the construction of enormous sewerage systems and provision for the proper disposal of the sewage. On this point Mr. Hatton says: "Prior to 1880, with but few exceptions, sewers were primarily built by cities and towns for carrying off the storm water, and, incidentally, they were used to carry off the liquid household and manufacturing wastes. The writer has knowledge of eight of the larger towns, one a city of over 300,000 population, which up to a few years ago prohibited by ordinance the discharging of any sewage into the sewers of the municipalities. Few sewer systems were designed as an intelligent whole, but were mostly designed and constructed for immediate needs. The larger cities carried the storm water and sewage through the same conduits to the nearest available natural water course." All this is now changed. "From the replies to his circular letter, the writer believes that there have been more miles of sewers built in Eastern cities since 1890 than of water mains, and that the money expended for them has been of larger amount than for any other municipal improvement, except street pavements." Since 1880 at least 83 municipal plants for the purification of sewage have been constructed, and Mr. Hatton believes that within a few years now there will be few cities and towns in the populous Northeastern States that do not purify their sewage. On pavements more money has been spent than on any other improvement. Since 1890 the cost of the various kinds of pavements has decreased, Mr. Hatton finds, 30 per cent., although the cost of labor has considerably appreciated. He believes this due to a smaller margin of profit for producers and contractors. Nearly all the regular and systematic cleaning of streets has developed, he says, within the 25 years. Another great improvement is in street lighting, for which electricity was only beginning to be used in 1890. The cost of electric lighting has decreased 30 per cent. in 15 years, and is expected to decline further. The burial of electric wires has also taken place almost wholly since 1890. Twenty-five years ago there were no trolley cars; now every city and town has its trolley system. The most pressing question to-day, in Mr. Hatton's opinion, is the disposal of garbage. He states that in the Atlantic States 88 cities are now reducing, cremating or otherwise disposing artificially of their garbage, but the whole effort, he thinks, is still in an experimental stage and far from satisfactory. The conclusion of his paper, of which this has been only the barest summary, is that "public progress has kept pace with private improvements, in spite of the handicap which politics always places upon it"—an opinion that is encouraging and probably correct.

A PROPOSED CLASSICAL EXPOSITION

The suggestion has lately been made that Rome join the list of cities that organize great expositions for the attraction of tourists. A sufficient excuse might be found, it is pointed out, in the inauguration of the colossal monument to Victor Emmanuel II., that has been so many years in building; and then the proposal, of such indifferent interest otherwise, is imbued with vitality by the character suggested for the exposition. A writer in the "Nuova Antologia" argues that since Rome can scarcely hope to excel in a commercial exposition, this one—for which he chooses 1911 as the date—should be purely artistic, and its site should include the Forum, the Colosseum, the Palatine Hill, the Circus Maximus, the Baths of Caracalla, and as far as St. Paul's Gate on the Aventine. There the galleries for ancient art should rise, looking on the Tiber and the Alban hills; and sacred art should find housing in the cloisters of the churches of St. Saba, St. Alessio and St. Sabina. He would have all the structures in keeping with their classic surroundings and of the highest artistic impress. He suggests a monumental portal to the Aventine, a boulevard from the Arch of Constantine and the Circus Maximus, and another from the Circus to the Catacombs. The landscape gardening, if rightly carried out, would forever enhance the attraction of the splendid ruins. And only two things are needed, he says, for success—a genius and 40,000,000 francs. But what great things, more permanent than an exposition, might be done by money and a genius! If, however, this cause serves where others fail to bring them into union, there will be a result well worth, indeed, the seeing.

ECTON CHURCH CONTROVERSY

Speaking of restorations, the discussion that has been dragging along for some months about the restoration of Ecton Church, England, is illuminating and instructive. It is particularly so in this instance, because Americans, who have not many opportunities for such discriminations, have borne a part. Ecton Church had close connections, it will be remembered, with the father of Benjamin Franklin, and on that ground appeal was made to Philadelphians for subscriptions for its restoration. Of those appealed to one at least wrote to the secretary of the Society for the Protection of Ancient Buildings, in London, to know what was thought of the plans; and another, Henry Phipps, when abroad last summer, conferred with him. The result of these communications was the discovery that the society disapproved of the plans, and, having tried in vain to have them amended, desired to have its opinion made known that the proposed restoration would detract from the building's value, both artistically and historically. This was because, as those familiar with the society's dicta will readily surmise, it was proposed to bring the building back to what it may have been at some particular period of its history by the introduction of misleading work, which, it was claimed, could only cast doubt upon the authenticity of the genuine ancient work. Because of the society's disapproval of the plans on these grounds and the rector's unwillingness or inability to secure their modification, a good many American subscriptions were withheld. At the expense of the Ecton Church restoration fund some good lessons were learned in this country.

CIVIC ART REPORTS

Distant Honolulu has fallen in line with the many American cities now making conscious efforts to enhance their beauty, that strangers may find them more attractive and residents better to live in. To this end the Board of Supervisors lately sent to the United States for Charles Mulford Robinson, who is now in Hawaii making a report on the opportunities of the city. On his way to the coast Mr. Robinson stopped in Denver to prepare an elaborate report for the Municipal Art Commission there, and other engagements await his return. There has been few municipal developments so agreeably significant and so widespread as this turning of towns and cities to a practical civic art ideal, their recognition that always a concrete and distinctly individual plan of development is needed, and their willingness to seek expert advice in obtaining it. That Honolulu should voluntarily join in the movement at this time would not have been commonly expected. It is such a little while since the Sandwich Islands were a missionary byword. They have now given proof of a full measure of civilization.

VOL. XIX. No. 4. APRIL, 1906. WHOLE No. 91.

THE ARCHITECTURAL RECORD

CONTENTS

PAGE

THE HARMONIE CLUB-HOUSE—Illustrated 237
HERBERT D. CROLY

THE WORK OF WOOD, DONN & DEMING, Washington, D. C.—Ills. 245
LEILA MECHLIN

TWO NEW ARMORIES—Illustrated 259
MONTGOMERY SCHUYLER

THE BUILDING OF A GREAT MERCANTILE PLANT—Illustrated ... 265
THEODORE STARRETT

FORTRESS-MONASTERIES OF THE HOLY LAND—Illustrated 275
WILLIAM G. FITZ GERALD

THE ARCHITECT AND THE CRITIC 279
H. W. DESMOND

EXAMPLES OF GEORGIAN WORK IN CHARLESTON, S. C.—Ills.. 283
J. ROBIE KENNEDY, JR.

TWO HOUSES BY ROBERT SPENCER, Jr.—Illustrated 295

NOTES AND COMMENTS—Illustrated 306
Boston's "Town Room"—Restoring the Parthenon—Old Mural Paintings Restored—Carcassonne—Street Traffic in San Francisco—Bridges in Boston—Restorations in Venice—Competition for Workmen's Dwellings—Civic Centers in Small Towns.

TECHNICAL DEPARTMENT—
Glazed and Colored Terra-Cotta—Illustrated 313
The Routine Paint Specification 325

C. W. SWEET, Publisher R. W. REINHOLD, Business Mgr.
H. W. DESMOND, Editor H. D. CROLY, Associate Editor

Subscription (Yearly), $3.00 Published Monthly

TWENTY-FIVE CENTS

THE ARCHITECTURAL RECORD CO.
NEW YORK

TWENTY-FIVE CENTS

OFFICE OF PUBLICATION: Nos. 14 and 16 VESEY STREET, NEW YORK CITY.
WESTERN OFFICE: 511 MONADNOCK BLDG., CHICAGO, ILL.



THE HARMONIE CLUB.

10 East 60th Street, New York. McKim, Mead & White, Architects.

The
Architectural Record

Vol. XIX APRIL, 1906 No. 4

The Harmonie Club House

No firm of architects in this country have had anything like the experience which McKim, Mead & White have had in designing club houses; and many of their most conspicuous successes have been made in this class of building. The first club house they designed was that of the Freundschaft in New York City. Then came in quick succession the Algonquin Club in Boston, the Deutcher Verein, the Riding and Driving Club in Brooklyn and the new building for the Century Club. In this house they were most happy in maintaining in its rooms a strong suggestion of the old New York interiors, and no atmosphere could have been more appropriate for the apartments of a club with the traditions of the century. About the same time they did over the Players, which house remains to this day the most comfortable and charming club house in New York City. The Metropolitan Club House followed soon thereafter; then came the building for the Harvard Club, and then for some years there was a lull, which was succeeded by a fresh burst of activity. The splendid new building of the University Club was the first fruits of the revival, and it must still be counted the finest thing of the kind in New York City. Then there followed in quick succession the Brook, the new Lambs, the new Harvard and the Harmonie, while in another year the building of the Woman's Athletic Club on Madison Ave. will have been added to the list.

That so many commissions of this kind should have been bestowed upon the above-mentioned firm should not be considered as the accidental result of their general popularity. Other prominent firms of architects have been almost as popular in respect to their classes of work, but McKim, Mead & White have no competitors at all, so far as the designing of club houses is concerned; and the reason, doubtless, is that the characteristic merits of their treatment, particularly in relation to interiors, appear at their best when it is a matter of designing club houses. They have a way of making rooms, designed in general along academic lines, very interesting and comfortable places in which to sit; and it is of their ability to give atmosphere, character and warmth to the big, impersonal lounging and dining-rooms of a club house, which makes their work so highly appreciated by club men. The few modern New York club houses, which have been designed by other architects rarely possess the same quality—a quality which, as is well known, McKim, Mead & White manage to impart to almost all the living-rooms they design—even to those rooms which are most splendid and magnificent in their scheme of decoration. The University Club House, for instance, has been built and decorated on a scale of magnificence, more appropriate, perhaps, for a hotel than a club, but for all that the chief rooms in the building are as far as possible from being examples merely of barren and depressing splendor. Not only are they designed with the utmost skill, but they are distinctly agreeable living and

Copyright, 1906, by "The Architectural Record Company." All rights reserved.
Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879.



ENTRANCE TO THE HARMONIE CLUB.

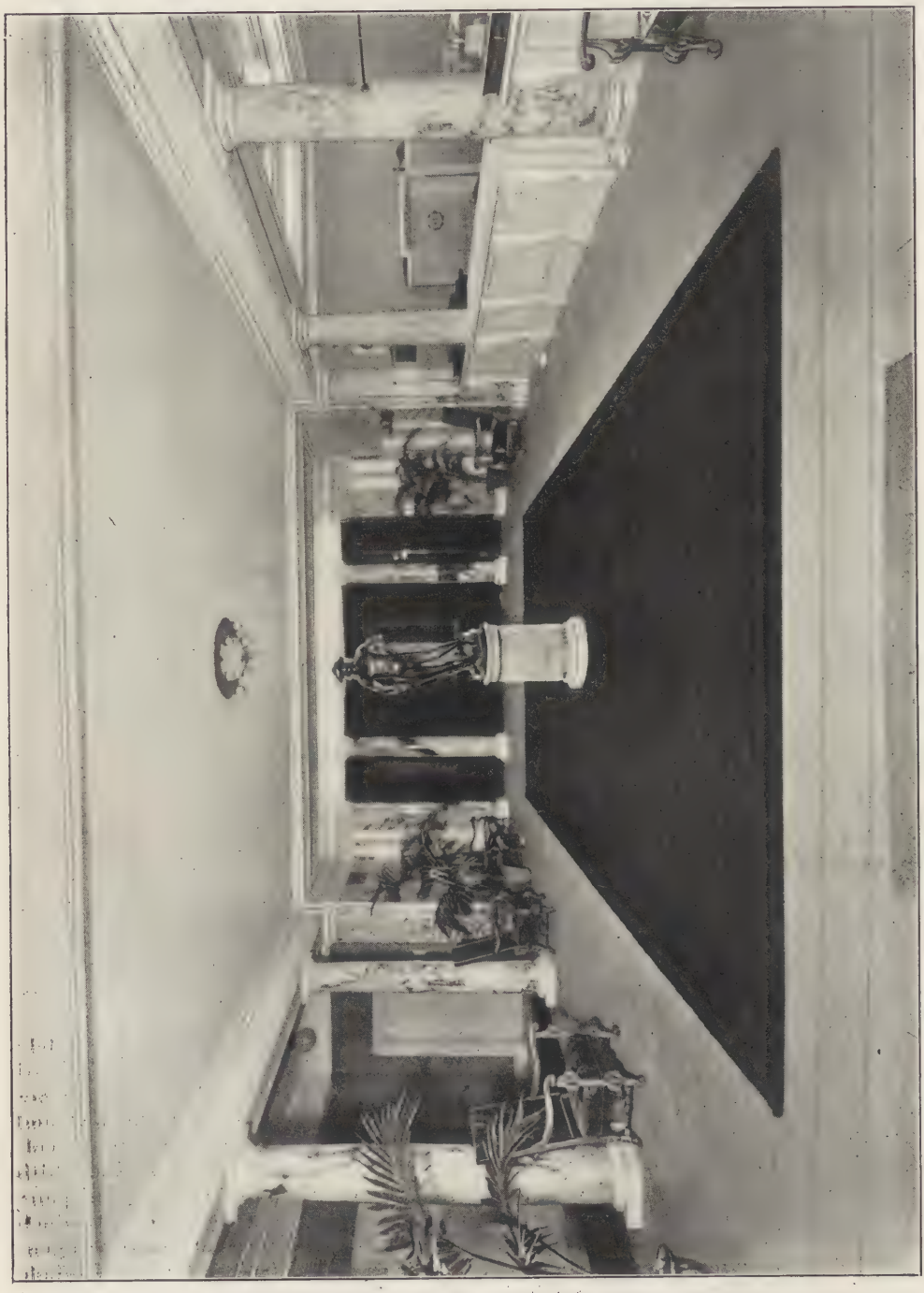
10 East 60th Street, New York. McKim, Mead & White, Architects.

eating rooms, in which a man may feel himself as much at home as in any apartments of similar size and architectural pretensions. McKim, Mead & White do not turn the rooms of a house which they are designing over to outside decorators. The rooms are made in the firm's own office, and bear the unmistakeable stamp of its methods, purposes and taste.



LOUNGING ROOM, HARMONIE CLUB, LOOKING SOUTH.
10 East 60th Street, New York. McKim, Mead & White, Architects.

The building of the Harmonie Club on East 60th St., in New York City, is a worthy successor of the long line of similar buildings which have preceded it. It does not, indeed, possess the peculiar distinction of a number of the previous club houses, such as that of the Century, the Players, the University or the Harvard, but that is doubtless because the club itself does not possess any distinguishing characteristics which would naturally suggest some individual and interesting building. The club house is enclosed both on the east and west by apartment houses of more considerable height, and in order to hold its own against such neighbors it had to be somewhat showy both in design and in material. The street front, consequently, is constructed of marble, and the design is more pretentious than usual. The entrance porch is carried up through two stories, and immediately above there is a recess on the face of the façade large enough to contain six windows in two different stories, and embellished by two engaged Ionic columns. The third, fourth and fifth stories are tied together by four pairs of pilaster, between each pair of which the long and somewhat narrow openings look rather "spotty." On the whole it is a fair criticism of this facade that its scheme of architectural design and



LOBBY ON THE MAIN FLOOR, HARMONIE CLUB. McKim, Mead & White, Architects.

10 East 60th Street, New York.



LOUNGING ROOM, HARMONIE CLUB, LOOKING WEST.

10 East 60th Street, New York. McKim, Mead & White, Architects.



GRILL ROOM, HARMONIE CLUB.

10 East 60th Street, New York. McKim, Mead & White, Architects.

decoration has not been very successfully combined with the necessary conditions imposed by the plan of the building and the purposes for which it is used.

The interiors, on the other hand, while not as interesting as many which McKim, Mead & White have designed, possess, nevertheless, the characteristic good qualities of their work. They are simply, broadly and appropriately treated, and the scheme of decoration is much adapted to the dimensions of the various rooms and the purposes to which they are put. What could be better for its purpose, for instance, than the treatment of the lobby, the severity of which is relieved by the handsome marble columns, and the whole appearance of which is centred by the copy of Cellini's Perseus in the middle of the floor? In the lounging-room the wall space is cut up by a large number of windows, but the ceiling is effectively managed, and the wall painting over the mantelpiece forms an effective terminal feature for that end of the room. The grill-room looks small for a club of this size, and compares amusingly in its size with the dining-hall of the Harvard Club. Evidently the members of the Harmonie Club eat their meals at home much more generally than do the Harvard graduates domiciled in New York. In the Harmonie Club House even the card-room seems to be more spacious than the grill-room.

Herbert D. Croly.



GUNSTON SCHOOL.

Washington, D. C. Wood, Donn & Deming, Architects.



CENTRAL TOWER OF PROVIDENCE HOSPITAL.

Washington, D. C.

W. B. Wood, Architect.
W. I. Deming, Engineer.

The Work of Wood, Donn & Deming, Washington, D. C.

Washington, the capital of the nation, offers to architects unusual opportunities for artistic expression. Its wide streets and stately avenues furnish not only long vistas but dignified settings; its ample stretches of unbroken sky, its abundant foliage and universal parking, lend it color and picturesqueness, and its village veneered in places with urban sophistry. It is essentially Southern and yet thoroughly non-partisan—neither conservative nor progressive. For these reasons it affords, architecturally, uncommonly wide latitude, and suffers proportionately from a multiplicity of styles. Its public buildings are for the most part



PROVIDENCE HOSPITAL.

Washington, D. C.

W. B. Wood, Architect.
W. I. Deming, Engineer.

official function gives it both individuality and distinction. It is a peculiar city, thoroughly cosmopolitan and yet at the same time provincial. In spite of the fact that it is the seat of the Federal Government and that its population is drawn from every State in the Union, as well as the world at large, it is in truth neither more nor less than an overgrown classic in type, but its private residences and business structures conform neither to rule nor tradition. When a Federal legislator wishes to inaugurate in his own State some radical measure he habitually tries it first upon the unoffending District of Columbia, and, reviewing critically the architecture of Washington, one might be led to believe that

the same course had been pursued by the architects. There is undoubtedly virtue in variety, but at the same time there is in the mass of experimental production comparatively little, unfortunately, which bespeaks original thought or an appreciation of existing possibilities. That is, until very recently.

At the time the city was laid out good taste as well as critical judgment prevailed. The public buildings which were then erected are counted to-day of exceptional worth, and some of the private residences built during that same era are still considered exemplary. From the early fifties to the late eighties there was a period of darkness, a reign of architectural terror, which produced many aberrations and left on some of the city's principal thoroughfares monuments to the ignorance and indifference of their designers. About the time of the Columbian Exposition there was a change for the better, not directly attributable, however, to the beneficent influence of that great World's Fair. The wave of improved standards which crested at that point passed over the entire Northeast and skirted in its progress the National Capital. In 1893 the Tarsney Act became a law; in 1897 the reorganization of the Supervising Architect's office was begun, and the year 1901 saw the appointment of the now famous Park Commission. Meanwhile there was development along other lines. Certain young men were coming from the local backwoods and from abroad with new ideas and good training—men who were destined to give



MAIN ENTRANCE, PROVIDENCE HOSPITAL.
Washington, D. C.
W. B. Wood, Architect.
W. I. Deming, Engineer.

fresh impetus to architectural production and to make in the field of American architecture not unworthy contributions. They were distinctly the product of their age. They comprehended, perhaps intuitively, the conditions with which they had to cope, and they brought to bear upon their work not only strong personality, enthusiasm and high ideals, but also in most cases good schooling and sound judgment.

couraged by the slowness of his progress and the diminished distance of his goal, he left it after a few weeks, and, with the temerity of inexperience, started out for himself. At the Library of Congress he obtained and studied the standard works on architecture, and from his associates he gleaned what practical information he required. Going to original sources for his inspiration and frankly acknowledging his mistakes, he brought



RESIDENCE OF MR. C. A. DOUGLAS.

Washington, D. C. Wood, Donn & Deming, Architects.

Among these men of the later generation may be numbered all three members of the firm of Wood, Donn & Deming, a firm which since its formation has done much toward the improvement of local conditions. Mr. Waddy B. Wood, the senior member, came to the city from a Virginia farm after three years' employment on a railroad survey. Determining to become an architect, he entered, after the usual manner, a local office, but, dis-

to his task freshness of vision, common sense, and rather a large measure of inherent ability—attributes which even the best school is unable to supply. Mr. Edward W. Donn, Jr., is a Washingtonian, a graduate of the Boston Institute of Technology, a post-graduate of Cornell, and a man of keen artistic perception. His is perhaps the more scholarly mind, but the less vigorous imagination. To him falls naturally the refinement of de-

tail, the perfection of plan. The third member, Mr. William I. Deming, is a structural engineer, with a degree from the Columbian, now George Washington, University. He is a man of executive ability, excellent critical faculties and clear intelligence—the business manager to whom in reckoning success credit is always due.

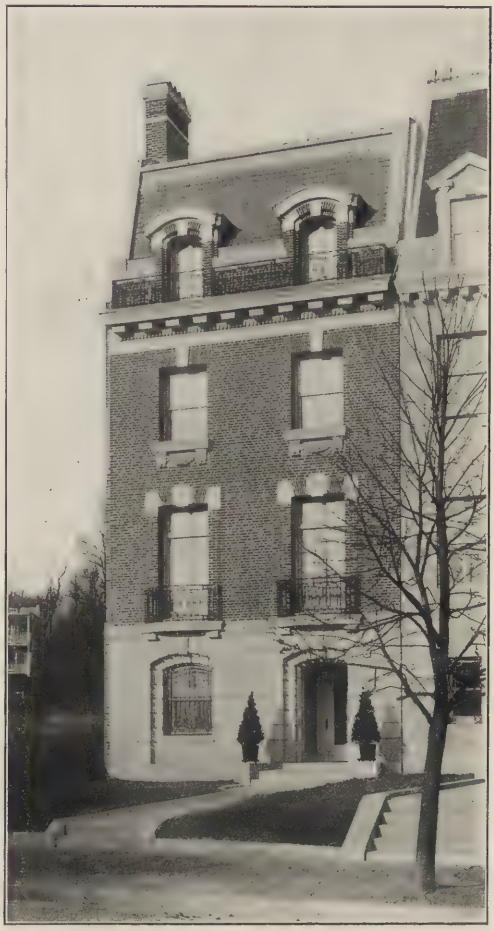
The personnel of a firm is, it is true, of small significance in comparison to its work, but it sometimes serves as an index to the latter. What a man produces depends largely upon what he is, his personality as well as his equipment, and in due ratio the output of a firm must be proportionate to the strength and relative merits of its members. In the present instance the component parts admirably complement each other and thus collectively, without wasted force, form a successful working unit.

From point of priority as well as on account of distinguishing characteristics, it will be well in reviewing the work of these architects to turn to the Providence Hospital Building first. It is, as one will see at a glance, an adaptation of the Spanish mission style and was a problem in partial reconstruction. When Mr. Wood and Mr. Deming were called upon for a plan for this building (Mr. Donn was then a designer in the Supervising Architect's office) they found on the present site, covering almost half of the available ground, a structure of the most prosaic type which must of necessity be taken as a basis of design. This might have been a stumbling block, but instead was converted into an opportunity. Using the old building as a wing, duplicating it with a new building, and connecting the two by means of a tower, the general scheme was complete, but



GENERAL C. L. FITZHUGH'S RESIDENCE.
Washington, D. C. Wood, Donn & Deming, Architects.

would have been of small moment minus the external form in which it was set forth. Because it was a Roman Catholic institution the architect saw fit to fashion his design in the spirit of that style introduced into America by the Spanish priests. The form of the walls was undisturbed, the original openings virtually accepted, but the severity was tempered by a coating of pebble-dash, the monotony broken by the judicious introduction of bays and insertion of loggias. The entrance and the tower, which were both new, lent it dignity and appropriate importance. In combination of materials it is interesting. The steps and enclosing wall are of red unfinished brick, the entrance and adjoining porches Indiana limestone, the wall face buff stucco of a rather coarse texture, the window frames and trimmings wood, painted a gray-green, and the roof, which is upheld by wooden rafters, of red Spanish tiles. At a glance it is the color scheme which attracts the eye and gratifies the esthetic sensibilities; and color as an element of architecture is the one thing which for some reason until very lately has been most widely disregarded or overlooked. In a painting it is color which primarily declares itself, which directly and continually appeals to the senses, and which is chiefly accountable for what is termed "decorative effect." Color charms the eye; line and proportion address themselves to the intellect. The Greeks, we know, appreciated this fact, and Nature on every side demonstrates it. It is an axiom, moreover, no less applicable to architecture than to painting. There is indeed less difference between the calling of a painter and an architect than many suppose. The one is merely obliged to produce pictures with brushes and pigments, the other with wood, brick or stone. The painter's aim is, or should be, to interpret Nature; the architect's to adapt Nature to the needs of man, for just as surely as the one works irrespective of his fellow beings, the other is required to labor in consideration for them. Architecture cannot be divorced from man; it was called forth by human necessity and has developed and existed in accordance with



RESIDENCE OF MRS. PHIL. SHERIDAN.
Washington, D. C.
Wood, Donn & Deming, Architects.

timely demand. It is essentially a useful art, but it is for that reason none the less beautiful. An artist paints a picture on a flat canvas and places it in a house or gallery; an architect builds that structure and through his design contributes to the making of a larger picture called a city. He is obliged to work not only with material, but with environment and to consider utility together with beauty and fitness.

This in the Providence Hospital building Mr. Wood has done. Primarily it is picturesque; its color scheme is more than ordinarily harmonious; its expression dignified and significant; its façade is pleasantly broken and yet sin-

cerely a unit; its well proportioned tower cuts strongly against the sky, and its roof, with its warm color and varied surfaces, not only gives to the building an air of brooding protection, but lends a grateful note to the city itself.

It has been said that the exterior of a building should, to the initiated, be literally transparent—that it should, in other words, definitely indicate the interior plan—and to this principle the Providence Hospital adheres. Where the plan has depth it is plainly suggested, and where it resolves itself into galleries or curtains it is unequivocally expressed. Within, the arrangement is simple and logical. The entrance hall and main stairs show suitable proportions and good taste. It is unmistakably a public institution, but it is neither cold nor repellent. Every detail has been carried out in accordance with the doctrine of advanced science and the arrangement of the operating rooms is most complete. Each corridor is lighted by a window at its extremity, and for the benefit of convalescent patients sunny loggias and a roof garden have been provided.

The mission style commends itself both to the climate and the purse of Washington. The winters are short and comparatively mild; the majority of the residents only moderately wealthy. Stucco is not cheap, but it is less costly than stone and presumably more imposing than brick. Messrs. Wood, Donn & Deming have just completed in this material and style an apartment house and a private residence which are individually worthy of consideration. The former is



ROW OF RESIDENCES ON HARVARD STREET.

Washington, D. C. W. B. Wood, Architect.

situated on a singular, bow-shaped lot formed by the junction at an obtuse angle of Twentieth street and Florida avenue. It measures from end to end 336 feet, is three stories in height and shows a red-tiled roof and green trimmings. Its notable features are its general picturesqueness, its roof garden and its plan. Three tiers of apartments, some one and some two stories in height, radiate from a main front hall and are approached by a single staircase. All the rooms open either on the street or on triangular, unenclosed courts, and are light and airy. The building is clever and interesting, but less studied and more open to adverse criticism than much of the firm's work. The gables are, for example, rather light, in proportion to the façade, and distinctly choked by the clasp of the overhanging cornice; the left wing does not terminate entirely satisfactorily, and since the erection of the pergola it may be questioned whether or not the central member has sufficient elevation for the purpose of emphasis and poise. But these are the incidents, not the substance, of the design, and, though they mitigate the value of its objective form, they do not trespass upon its intrinsic merit.

Of the residence built, on Columbia Road, for Mr. C. A. Douglas, one can speak with more unqualified appreciation. Likewise fashioned after the Spanish type, it is particularly well adapted to present needs. It faces east and is elevated from the roadway by a five-foot terrace. In height it is but two stories and an attic; in width two rooms and a hall. The façade, warm gray stucco of a fine texture, is dignified and simple; the entrance notably hospitable and impressive. The unique feature of the de-



ROW OF RESIDENCES ON NINETEENTH STREET.
Washington, D. C. Wood, Donn & Deming, Architects.

sign is the patio on the south, which forms a secluded retreat for social use on summer evenings and affords light and a vista to all the principal rooms. On its cloisters the drawing room, square middle hall and dining room open through French windows, and to it the formal driveway leads. It adds stateliness to the building and yet at the same time an air of informality. It suggests family life and those luxuries which



RECEPTION HALL IN MR. WOOD'S HOUSE.
Washington, D. C.

are merely the external expression of culture and refinement. The interior is well in keeping with the general design—well arranged, homelike, not lavish in ornamentation, but rich; commodious but eminently livable. The treatment of the chimneys, the way in which they terminate the gables and are thus knit into the design, is interesting, and the fact that it is an all-around house, with the traditional rear, is worthy of mention.

On an entirely different style, more usual perhaps and yet certainly more scholarly, is the residence designed about two years ago for General C. L. Fitzhugh. Built of brick on a limestone base, with stone trimmings, tiled roof and stucco facing, it occupies a commanding position on Sheridan Circle, and can for the present boast as a background unbroken stretches of woods and sky. Its proportions are excellent, and its arrangement of openings leaves little to be desired. There is something very neat in the design, in the well-modulated coloring and clear-cut, positive lines. The details are admirably fashioned. Note, for instance, the wall panels and the moldings, but they have been adroitly subordinated to the general effect. The roof, which in the illustration appears rather thin, is in reality of satisfactory weight, has an agreeably wide overhang, and is supported by wooden brackets carved and stained. There is no sug-

gestion of modern hurry in this house, no semblance of artificiality or self-conscious pretension. It is serious, studied and substantial, and it manifests, together with the personality of the owner, the strength and scholarly attainments of its designers.

Not more than a stone's throw from this stands the house of Mrs. Phil. Sheridan, a less costly structure, but equally as intelligent and dignified a design. It shows an exceptionaly skilful use of material, and for this reason is specially commended to attention. The base, trimmings and cornice are limestone, the façade red brick, and the roof gray-green slate. The bricks are laid in alternate courses of Flemish bond and stretchers, with wide joints, and are so placed as to form a repeated, geometric pattern.

Five shades of bricks are used, none, however, of heavy tint, and the general design formed by the lines of mortar, while definite, is not insistent. Punctiliously correct, severely formal, it derives a sparkle and vivacity from its color scheme—an effect of latent vitality held in modest reserve, which probably could have been realized through no other channel.

The impressionists discovered that to produce the effect of air and sunshine they must reverse the practice of the spectroscope and compose their pictures of color spots—red, blue, yellow, purple, orange and green—placed in exactly the right proportion in juxtaposition. They carried their theory to extravagant excess, but beneath its surface was more than the proverbial grain of truth. Nothing in Nature is a solid color, that is, no extended mass; or, if it is, it will be found unappealing. The blue of the



DINING-ROOM IN MR. WOOD'S HOUSE.
Washington, D. C.

sea is broken by its reflections or its waves; the green of the lawn, varied by its countless shadows and minutely uneven lines. It may be, indeed it often is desirable to erect a building of a single material, but, even so, it must be wisely modified in color as well as tone by the careful introduction of varied surfaces and by skilful manipulation of the problems of light and shade. And this in turn leads us not only to a consideration of color, but of texture.

There is no material more adaptable to decorative purposes than brick, none with larger possibilities, and yet none probably which has been more frequently misused and abused. With this material Messrs. Wood, Donn & Deming have made some interesting experiments and achieved some excellent results. They treat brick with the utmost frankness, make its identity self-evident and its character undisguised. They use frequently, as in the Sheridan house, several shades, and lay them almost always with wide joints. To texture they pay special attention, breaking the evenness of the surface or lending it finish by the judicious use of rough or smooth joints, as the material and occasion may dictate. Thus they differentiate between a painted wall and one of brick; between a stable, a shop and a residence. The styles which are to-day held as exemplary were produced largely by the needs of their own times and by the limitations of available material, and if we are to develop in this era a style worthy of remembrance it must be through a conscious effort in this same direction.



ST. PATRICK'S PAROCHIAL BUILDINGS.

Washington, D. C. Wood, Donn & Deming, Architects.

Since its incorporation the present firm of Wood, Donn & Deming has stood

for sincerity and protested against sham. It has discountenanced the use of tinstone trimmings, galvanized iron ornamentations, shallow facings and the like, and has utilized in their stead cheap but honest materials. This attribute will best be comprehended by an examination of the three rows of moderate-priced dwellings shown in the accompanying illustrations.

The homes of the "comfortably poor" have been less kindly dealt with by those of the architectural profession than the residences of their more prosperous brethren. They afford, without doubt, smaller opportunities and offer less generous reward, but in the makeup of a city and in the life of a nation they are undoubtedly of the more profound importance. The house a man lives in is bound to affect his ethics, and there are, it must be remembered, more men who work than princes, even on this side of the Atlantic. That to be artistic and architecturally worthy a house need not be costly, these rows of residences amply testify. The Harvard street row is probably the most usual in general aspect, and yet, through purity of design, the most noteworthy; the Columbia Road row is chiefly remarkable for its adaptation of space, individuality and attractive roof treatment; while that on Nineteenth street stands as an example of unique design and peculiarly felicitous arrangement. An additional word should be said in connection with the last. As will be seen from the plan, the effort was to throw as many rooms as possible to the front, which faces east, and at the same time increase the normal feasibility for comfort and convenience. They are frankly homes, and their design is of sufficient latitude to be adaptable to various personalities. Externally they are most picturesque—odd, but not eccentric. The material is hydraulic brick of a cream color, laid with wide, rough joints; the roofs are of red tiles; the window frames, etc., wood, painted sage green. The parking gives them privacy and, with the foliage, appropriate setting.

In the matter of plan and interior finish the house which Mr. Wood owns and occupies is in a measure typical. On a lot with a frontage of forty-five feet, he and Mr. Deming built for themselves twin houses, American basements, with flat façades and a light court opening on the street. Mr. Wood has treated his reception hall after Pompeiian design and has handled it with exceptional cleverness. The second story staircase is screened by columns which are less imposing and more in keeping with the pretensions of the residence than they appear in the photograph. His drawing room is formal, but hospitable; his dining room of genial proportions and good design. The scheme of color throughout is green, the woodwork light gray. The details are well thought out, simple and not over-emphasized, the wall spaces well arranged for the purpose of convenient furnishing. There is a reticence in both the plan and design which is commendable; a fidelity to accepted types which puts all fadism to shame.



ENTRANCE TO CARROLL INSTITUTE.
St. Patrick's Parochial Buildings.
Washington, D. C.
Wood, Donn & Deming, Architects.

On an entirely different line, display-



"THE BACHELOR" APARTMENT HOUSE.

Washington, D. C. Wood, Donn & Deming, Architects.

ing versatility as well as skill, are the St. Patrick's School and parochial buildings, which this firm designed almost at the outset of its organization and which still stand among its chief accomplishments. St. Patrick's Roman Catholic Church is in the heart of the business section and, though built many years, is not yet completed. To suggest a scheme for its completion and to design in accordance with that scheme the parochial house and school for immediate erection was the task given to these architects. The style chosen, it will be noted, was the English Gothic, and the manner of rendering will be found to conform well with tradition. A description of the general aspect of these buildings with the photographs before us would be gratuitous, but attention may be directed with propriety to the strength and heaviness of the design—to the way in which the various purposes of the two buildings have been indicated by the arrangement of openings and the increased or diminished formality of expression. Unfortunately the roof lines of these structures cut against the unpicturesque rear walls of adjoining office buildings and are thereby dwarfed and made less effective. To this is due a squat appearance, which is obviously objectionable, but in making any criticism it must be remembered that the scheme is still incomplete and that when a spire is added to the church and other alterations made they will probably, in spite of their surroundings, build up to the greater height in a way which will remove this impression. The detail in these buildings (for which it is understood Mr. Donn is chiefly responsible) is particularly interesting, the architects' vernacular from first to last manifestly intelligent and good.

The Gunston School, a young girls' seminary, is in still another vein. It shows Colonial derivation and exhibits in its plan conformance to modern utility. Its façade is logical, its expression sincere; the openings are well proportioned and nicely placed, the lines vigorous and significant. For the purpose of effect, however, it needs elevation from the level of the street, and to complete its symmetry should have balconies added to its second-story windows as well as weight to its porch.



RESIDENCE OF DR. GALLAUDET.
Washington, D. C.
Wood, Donn & Deming, Architects.

As truly Colonial, though less archæological is the residence built for Dr. Gallaudet. At a glance this house is sympathetically Georgian, but upon second thought it betrays a modern French tendency. It has an element of both; enough of the one to give it solidity, sufficient of the other to assure it grace. The wrought-iron railing which passes across the façade on a line with the drawing room windows is an unusual feature, intelligently introduced. In its design it is individually attractive, and as an element of the general composition it successfully bridges over the transition from stone to brick.

The Bachelor Apartment House, which is but just completed, is perhaps more notable as a product of the age than for its architectural pretension. It presents an orderly façade of selected brick and stone and shows on its roof a garden of attractive size and design. Within it is admirably planned and almost brilliantly adapted for its purpose, but its chief

value lies in the fact that it meets adequately the requirements of local conditions.

A few words at least should be said of the plans and design made by these architects for the new Masonic Temple, which is to be erected in Washington in the near future, not only because it is, up to the present time, one of the most ambitious of their accomplishments, but also because it proves them capable of handling large problems as well as small, and demonstrates the fact that they are not restricted to a single formula. This building will be erected on a wedge-shaped lot, bounded by two streets and an avenue. In conformity with the great public buildings, it will be Classic in type; unmistakably a temple, but so modified that it will suit the changed conditions of our time and age. The three façades, by their several parts, will convey to the mind the uses to which each section is put—the public part by large openings architecturally framed, and the secret by small openings and large, simple wall surfaces. The peculiar shape of the site made it possible to impress on the shortest and most important façade (that of which an elevation is given), the character of the temple, and to permit in the long sides the continuance of the same motive, with sufficient variation to preserve the type and yet lay extra emphasis upon its mystic character.

Some one once remarked that in the present age the best that could be said of any architect's work was that "it is not bad," but in this instance, which is not isolated, it would seem that we might be justified in going a step farther and pronounce it at least worthy. The members of this firm have not, it is true, always turned out good work—they are not infallible—but they realize their own limitations and have not yet attained maturity. They have, however, already made distinct contributions along certain lines. They have developed the pictorial; they have demonstrated the value of color and texture; they have put old materials to some good new uses and have met, in a measure at least, the needs and requirements of a peculiar place and time. Their buildings are not all faultless, but they are sincere; they do not grimace nor chatter, but are simple, dignified and of fair proportions. Their work is perhaps less brilliant commonly than the French, but it is more virile and it possesses what is rarer, a genuine spark of originality. For these reasons it has been thought worthy of discussion and will be found to merit even more careful scrutiny. In such work, we believe, tomorrow's promise is to be found.

Leila Mechlin

Two New Armories

The architecture of armories, meaning meeting places which are combined drill-rooms and club-rooms for our citizen soldiery, under our peculiar conditions, is a very special American architectural problem. One might almost say that it is a special problem of the State of New York, seeing how very urgent and liberal this commonwealth has shown itself in questions pertaining to its defence against "treason domestic" and "foreign levy."

We have by no means, even in the State of New York, and after so many expensive experiments, arrived at anything that may fairly be called a type of this kind of structure, which is entitled to impose itself upon subsequent designers. We have spent a great deal of money. To think of the number of armories that have been erected for the accommodation of the N. G. S. N. Y. within the last twenty years, and to recall the edifices upon which the money has been spent is to be assured that if the commonwealth is not well defended, it is not for want of money spent upon its defence. It is likewise to have recalled to one a number of edifices of an agreeable architectural impression. The phrase "military architecture" may conjure up, to the architect or to the layman, a number of architectural devices no longer practically relevant to the art of war, "crenelles," for example, through the crevices of which nobody would now think of shooting arrows, or even of aiming small calibre rifles, and "machicoulis," for example, down which nobody would any longer think of pouring molten metal, even against an embattled and striking front of linotypers, though, no doubt, as a repartee, that mode of defence would be pertinent. Most of our armories show some such concession as we have indicated to past modes of warfare by way partly of acknowledging their impotence architecturally to cope with actual modes of warfare. In the main they suggest warfare of the bow and arrow period, or at most of the ballista and catapult period. One should not be too hard upon the designers, all the same, for their harking back to obsolete but partly on that account, picturesque precedents. Their architecture may be "Aberglaube," but Aberglaube, according to Goethe, is "the poetry of life."

But there are even now, and quite practically, certain requirements of an armory, or, let us say, certain absences of requirement about an armory which make it an extremely attractive architectural problem. It shares with the storage warehouse the relaxation of the commercial requisition that a building shall be composed of a minimum of wall and a maximum of window. The architect is at least not compelled to make a sash frame. Which is to say that an armory gives legitimate scope for the massiveness and expanse of wall for which any architect with a "feeling of his business" must especially yearn by way of relief from the customary exercises of his profession. Every armory is, in fact, an opportunity. The proof is that, of the works of those architects who have built armories and built something else, their success with their armories is very apt to be more signal than their success with the something else. Witness, especially, the late J. R. Thomas. He had built something else in fairly abundant measure, commercial buildings, domestic buildings, public buildings, including the new Hall of Records, and particularly churches. Yet the amateur of architecture who should be called upon to reckon up Mr. Thomas's contributions to that art would have to put in the very first rank that armory, compounded of the headquarters of the Eighth Regiment and the headquarters of Squadron A, of which the round blind towers in good red brickwork, recalling to more than one traveled observer the Castle of



SEVENTY-FIRST REGIMENT ARMORY.

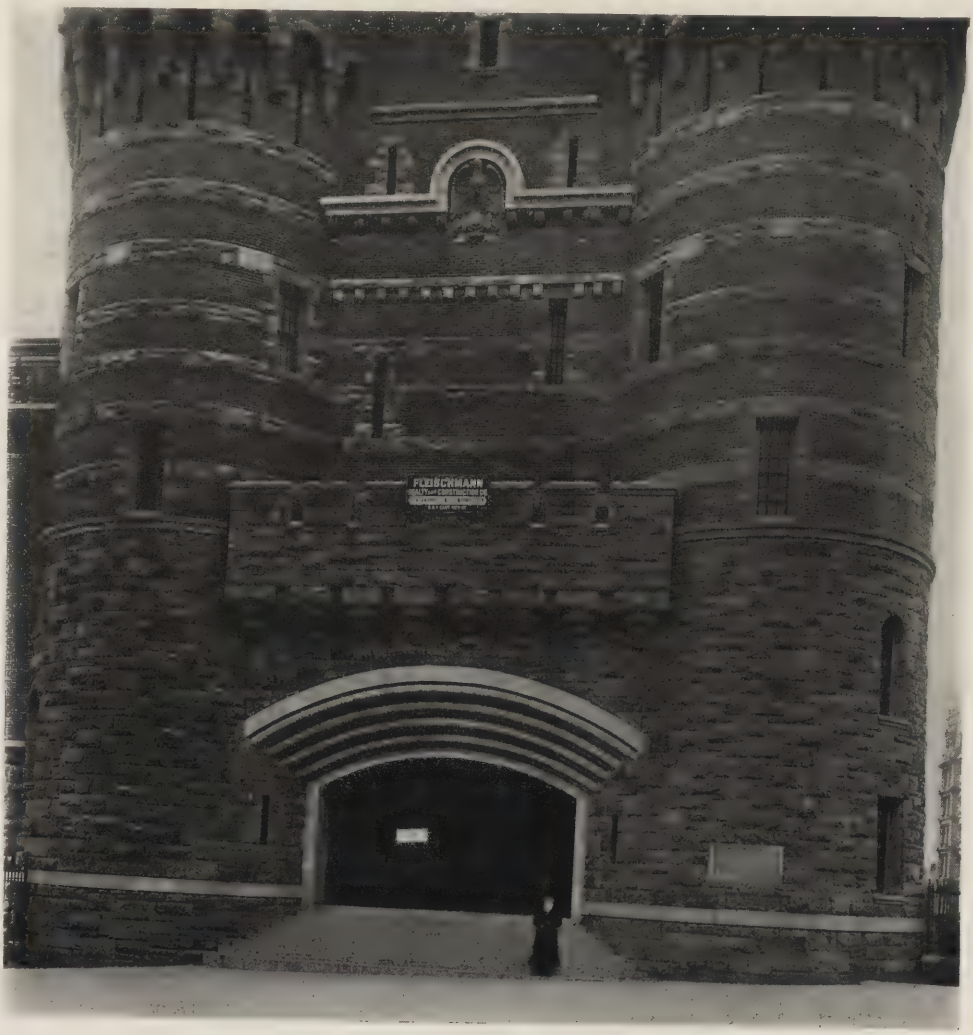
34th Street and Park Avenue, New York. Clinton & Russell, Architects.

San Angelo, form one of the most noteworthy objects in the region of upper Central Park.

With the armory of the Seventy-first, at Park Avenue and Thirty-fourth St., he was not so successful. The material was costlier and more pretentious, being rough masonry with rather a profuse use of wrought work. But the design was not so good. The impression of the finished building had the fatal defect of thinness. Curiously, the fire that burned out the shell of the building revealed that this thinness was a structural as well as an architectural defect. The walls the fire left standing were of a painful precariousness to the view. Many persons would regret the destruction of the armory at the top of Park Avenue. But nobody has been overheard to lament the destruction of the armory at its base. It would have had to be a pretty bad successor which should inspire that emotion.

As a matter of fact, the actual successor is a particularly good thing. One who has occasion to pass and repass it ought to be grateful to the designers who have given him something to look at. And one who has habitual occasion only to see its crowning tower, "above the purple crowd of humbler roofs," must also, if of a sensitive constitution, be moved to gratitude. The traditions one finds in full force, all the conventions of the mediaeval warfare to

which distance lends romantic enchantment, contrariwise to the actual and prosaic art of murder. The parapets are crenellated, though nobody is expected to shoot between the crenelles. The cornices are machicolated, though nobody expects to pour hot lead from the machicoulis. But the composition, with its flanking round towers on each side of the entrance which we are supposed to accept as a "sally port," especially in the deep segmental recesses of the main entrance, with the fewness and smallness of the openings, and the thickness of wall indicated by their reveals, the effective bonding of the rough brick walls with rough light stone,—all these things are of an undeniable attractiveness. The stark brick tower, with its Florentine reminiscence, or even without its Florentine reminiscence, is an oasis in our architecture, a distinct addition to our Manhattanese "tiara of proud towers," of which so many of the most conspicuous are not towers at all, but mere protrusions into the shrinking empyrean of parallelopipeds without shape or comeliness. The enforced author of so



SEVENTY-FIRST REGIMENT ARMORY, MAIN ENTRANCE.
34th Street and Park Avenue, New York. Clinton & Russell, Architects.



SIXTY-NINTH REGIMENT ARMORY, MAIN ELEVATION.
Lexington Avenue, 25th and 26th Streets, New York. Hunt & Hunt, Architects.

many of these is, one may suppose, the relieved and enjoying author of this. It must relieve him to have it in his power to make thus much of amends. And, if I am not wrong in thinking that one of his early works was the armory of the Seventh Regiment, some mile and a half north of this, and on the same avenue, he is entitled to congratulate himself upon his growth in artistic grace in the interval. Not that his present work is impeccable by any means. Seen close at hand, one cannot help seeing that the use of the American flag as an architectural decoration by the crude device of merely pasting it flat on a wall, is trivial and banal. A mosaic of the shield would have been much more to the purpose. Also, and in a distant view, the finial which culminates the tower is a baleful superfluity. The silhouette was much more impressive when the structure consisted, like its prototype, only of the two stark shafts beetling into their crenellated and machicolated cornices at the top. The exigencies of the camera, which prevented our photograph from showing that trivial and belittling umbrella did the architect a service. But we should be sincerely obliged to him all the same.

The other armory, that of the Sixty-ninth, at Lexington Avenue and Twenty-sixth, is of an entirely different inspiration from the preceding, or, in fact, from any of its predecessors. It seems even to be a protest and token of revolt against them. It is noteworthy by the absence of the conventions of military architecture, by its lack of "aberglaube." Your regular thing, the architect seems to say, is not at all founded on fact.

Your crenelles and machicoulis are anomalies in "the present state of the art." Go to. Let us build a modern armory on modern lines. The requirements being of a great assembly room suitable for battalion drill, and of an administration building thereto, let us express them in a building "without any bigodd nonsense about it" (Dickens). This is a conceivable mental state, and the architect of the Sixty-ninth has maintained it. But one wonders how an Irish regiment, of all human organizations, can afford to get on without sentiment and to stick to the facts! For, one sees, this practical conception of an armory is with difficulty distinguishable from that of a railroad station, with its "head house," answering to the administration, and its "train shed" answering to the drill room. Which conception, one has to own, is very thoroughly carried through, and if not exactly in an artistic, which in a way the author denied himself at the outset, at least "in a workmanlike manner." The smallness of the openings and the massiveness of the walls denote that he is free from the conditions which would cramp him in a station. Possibly the eyries which are the features of the front are meant to have military significance. One perceives that a few guardsmen stationed in them might make themselves very annoying, by means of an enfilading fire, to a mob in the street below. And without doubt they are picturesque excrescences. That peculiarity in the design which must at



SIXTY-NINTH REGIMENT ARMORY, 25TH STREET SIDE, LOOKING EAST.

Lexington Avenue, 25th and 26th Streets, New York. Hunt & Hunt, Architects.

once arrest everybody's attention is the carrying of the trusses which support the great roof outside, instead of hiding them within its equable convexity. The advantage thus gained by the increase of unbroken floor space is obvious and incontestable. There are animals, crustacean animals, which carry their skeletons outside, and one can imagine a roof very effectively treated in the manner of a carapace. But one cannot call the present treatment effective. Merely to sheathe your externalized skeleton in sheet metal is not to express it. And when you go on to carry along your roof the line of the main cornice of your terminal buildings, with an entablature more irrelevant to it, architecturally and practically, than would be any of the conventions of military architecture which you have renounced, you have added something at once superfluous and ugly, and, what is worse, given away your case. The building might commend itself to a scientific soldier, say, of the German General Staff. But, surely it is not so attractive as the other, as a visual object merely. It does not denote its purpose any more accurately. One is impelled to call the fundamental conception a mistake. But it is an interesting mistake, and the masses and the details are undoubtedly "handled." One does not, however, consider that it will have much influence in inducing future designers of armories to refrain from reverting to their traditional "Aberglaube," or, in the vernacular, "bigodd nonsense."

Montgomery Schuyler.



SEARS, ROEBUCK & CO. BUILDINGS—GENERAL VIEW FROM THE WEST.

Chicago, Ill. Nimmons & Fellows, Architects.

The Building of a Great Mercantile Plant

Have you ever read some stirring tale of heroic action, some story of a battle, for instance, and with bated breath and beating heart followed in your imagination a bloody charge like that of the Six Hundred at Balaklava—half a league, half a league, half a league, onward, on through the valley of death? And have you ever sighed as you finished the story and thought of the good days and the brave days when money-getting had not become the modern fetish, and deeds of derring-do were not a memory or a fable?

If you did, let me tell you you were wrong. These heroes still live. The race has not died out, and in these glorious days of hypocrites exposed and rascals cleaned out perhaps their fame may be heralded as in the days when war with its horrors was the only theatre of heroic action.

The public is used to talk about the captains of industry who have succeeded the captains of war, but the trouble is that all the captains of industry seem to be graduated from the quartermaster's department. The field officers — the fighters—who take their lives in their hands, and, mayhap, lose them, are often unknown to fame—if not unwept and unhonored, yet certainly unsung.

The temperament of the fighting leader is well illustrated by this story of Alexander the Great related in the words of Lord Bacon: When Alexander passed into Asia he gave large donations to his captains and other principal men of virtue; insomuch as Parmenio asked him, "Sire, what do you keep for yourself?" He answered, "Hope."

Well, let the sutlers and camp followers have the money, but for goodness' sake give at least some of the glory to the fighters. The quartermaster's department has been stealing other people's thunder, and it is high time that honors should be bestowed where they belong.

Who are the modern heroes, the real captains of industry? And where are they to-day? Within the walls of some packing house? A dozen thousand men are employed in one pig-sticking establishment, and the pork barons who pay their wages are the captains of a very profitable industry. There is bloodshed there, but glory—hardly.

Or perhaps it is the army of clerks who present arms behind the counters of some merchant prince, a captain of industry from the quartermaster's department in very truth.

Or perhaps it is the army engaged in manufacturing. That is too easy. A big army, it is true, but engaged in a stationary and more or less stable business with steady employment for the common soldiers year in and year out. What trouble is there about running such an army?



Chicago, Ill. MERCHANDISE BUILDING—SEARS, ROEBUCK & CO.

Thompson-Starrett Co. Building Construction. Nimmons & Fellows, Architects.



MERCHANDISE BUILDING, LOOKING NORTHWEST—SEARS, ROEBUCK & CO.
Chicago, Ill. Nimmons & Fellows, Architects.

Railroading has its devotees, but the railroader will have to be his own chronicler.

No, the industry that it takes a real captain to run is the building industry. There you have work for the leader of men. There you have an army that it takes an Alexander to handle—the freest product of our free civilization—a host of trade unionists protected in their freedom, let me not say license, by something which the law has not as yet been able to curb—more master than servant—not to be driven, yet in their very freedom susceptible to leadership—dare-devils who will steal a ride on a girder as it is lifted by a single strand of cable dangling from the end of a boom derrick to some dizzy height where the piece of steel is to be riveted in place to form a rib of that great thing of life, the modern sky-scraper.

He who would command an army of such men must be a captain indeed, captain of a nomadic host, to-day at work on some great building operation where thousands are engaged, to-morrow divided or perhaps entirely disbanded. The kaleidoscope-changes, the corps of different trades, each corps marching to do its own particular part of the work—a procession of craftsmen drilled and trained in the face of conditions that would be regarded as impossible in other industries, yet drilled and trained, nevertheless—gathered from nowhere, and after each corps has done its work scattered again to the four winds—these things pass before the mind and, mayhap, in their very difficulty appeal to the



ADMINISTRATION BUILDING. PRINTING BUILDING—SEARS, ROEBUCK & CO.
Chicago, Ill. Nimmons & Fellows, Architects.

imagination of the captain of the building industry—a man unknown to fame.

Here is the man who does things. And I sometimes think that his doing is the more glorious because he is not spurred on to his work by the loud acclaim of popular applause. There are no laurels to adorn his brow, no poet to immortalize his fame. I often wonder what it is that keeps the great building hustler up to the mark, for few of the really great ones are known outside the circle of their intimate friends. It is something divine, I think, like the spark that makes the poet. The pure joy of hustling, the satisfaction of the thing accomplished is his principal reward of his arduous labors—for of money he gets but little.

The Sears-Roebuck buildings in Chicago, out on the west side, are said in their entirety to form the largest mercantile plant in the world. When George M. Pullman built the industrial town which bears his name in what is now the south side of Chicago, the operation was the talk of the entire civilized world. All kinds of stories were written about it, and its wonders in the way of bigness were on every tongue.

The great Corliss engine which was the star attraction of the centennial exhibition at Philadelphia, and which was supposed to be too big for practical purposes, was moved to Pullman and there found a suitable work in running the power plant of the Pullman Company. That engine, I remember well, had twenty-five hundred horse power.

In the Sears-Roebuck establishment the power plant is not engaged in manufacturing, unless printing be called such, and yet it is necessary to have seven thousand horse power to do the work of heating, lighting and ventilating the building. I believe it would be found that you could bundle the entire Pullman plant, including not only the factories but the workingmen's houses, the town market and the theatre, into the single Merchandise Building of Sears, Roebuck & Company and still not fill it.

Think of an establishment whose mail exceeds in volume that of the city of Milwaukee, a town of 300,000 inhabitants, for, as I understand, in the first, third and fourth classes the mail of Sears, Roebuck & Company actually does exceed that of the city mentioned.

And this concern has a printing establishment housed in its own four-story building whose finished daily product weighs 80,000 lbs., or forty tons, for here are printed every day in the year, except Sundays and holidays, 20,000 copies of a 1,200 page catalogue, each copy weighing when finished and trimmed four pounds.

And they have their own private fireproof office building, about two-thirds larger than the Broadway Chambers in New York City—not a skyscraper, of course, but making up in length and breadth what it lacks in height. And this office building, or Administration Building as it is called, has marble floors and wainscoting and fine cabinet work, and, what to me is most remarkable, a heating and ventilating system for the benefit of all the clerks, mind you, so perfect as to remnid one of the special luxuries that heretofore have only been at the disposal of Croesuses.

All these buildings are connected by tunnels large enough to allow the passage of a two-horse wagon. These tunnels, 4,312 feet of them, are primarily intended for pipe galleries, but are so arranged that passage from one building to another may be made regardless of weather.

The foundations for the entire series of buildings are what are called caisson foundations; that is, they are carried clear through the clay to the underlying rock. There are 1,563 of these caissons and they run in depth from forty to ninety feet.

The buildings are good looking, too; not common brick factories, if you please, but so well studied and so tastefully decorated that I think the critics will congratulate the architects on their work.

An interesting book might be written about the buildings, but I will leave that task for others.

And the entire establishment was constructed, from the starting of the excavating until its complete occupancy by the owners, counting strikes and all, in less than twelve months. The exact



(1) ADMINISTRATION BUILDING. (2) COURT, WITH MACHINERY BUILDING ON LEFT. ADMINISTRATION BUILDING ON RIGHT—SEARS, ROEBUCK & CO.

Chicago, Ill. Nimmons & Fellows, Architects.

dates are, start January 24, 1905; turned over to the owners January 15, 1906; occupied fully by the owners January 22, 1906.

But even that does not tell the story, for the Merchandise Building, with its 14,000,000 cubic feet and over, was built and occupied in six days less than eight months from the time the first spadefull of earth was thrown.

In building these buildings, 23,000,000 bricks were used, being laid in six months' time—because not all the time was taken with the bricklaying. There was one day when the gang laid 353,000 bricks in eight hours, and there was one week in which 2,350,000 bricks were laid. I know of one or two respectable little skyscrapers with no more bricks in them than were laid in two days on this work.

Two of the buildings are mill construction, and the amount of lumber used is almost appalling. Long leaf yellow pine was specified because it is of slow combustion, and for this class of structure is said to be given preference by the insurance underwriters over steel construction. The order for the yellow pine timber was placed on January 11, 1905, and is said to be the largest individual contract ever given out in the history of the trade. A delivery of 12,000,000 feet within 125 days was called for. To secure this quantity of lumber in the time specified it was necessary to call into use seventy-five mills located in the States of Alabama, Mississippi, Louisiana and Texas, as the rainy season was just beginning in the South and the trees were growing in the virgin forests, for every piece of timber had to be cut specially to order and dressed to meet the requirement. The exact quantity of yellow pine lumber used was 13,545,576 feet, board measure. At one time there was a stock of 7,000,000 feet piled at the site. A saw mill was specially built to shape this material, and one of the sights of the job



ENGINE AND PUMP ROOM—SEARS, ROEBUCK & CO. BUILDINGS.

Chicago, Ill. Nimmons & Fellows, Architects.



CONSTRUCTION OF THE POWER HOUSE—SEARS, ROEBUCK & CO.

Chicago, Ill. Nimmons & Fellows, Architects.

was this mill in action. The timbers were run in at one end, rolled under the machine, clamped in place, a lever was pulled and down came a great jaw which shaped and trued the ends and bored the holes in the twinkling of an eye; then the jaw was raised and the timber was pushed out at the other end of the mill, to be taken thence to its place in the structure.

The lumber used for boxing the concrete foundations, tunnel forms and for miscellaneous jobbing around the work was 4,159,264 feet. One little item was 4,300 surveyor's stakes.

The order for maple flooring on this job was 2,800,000 feet.

Four foundries made the castings for the work.

During the rush a day's consumption sometimes ran as high as 30 cars of brick, 20 cars of lumber, 10 cars of sand, cement, crushed stone and miscellaneous material.

Imagine a train of 60 cars to unload each morning, and after unloading to be enwrought in a building before night, for that was the daily task. On the morrow 60 more cars would be waiting to be unloaded, and the day's work must be done. Some pretty good management is required here, I assure you, for while on the one hand there was the task of setting all these materials in their final resting places in wall or floor, on the other hand new material for the next day's work must be on the way ready to arrive at the right time, not too early, for that means loss through demurrage; not too late, for that is something worse still—stoppage of the work, loss of some of your army, perhaps demoralization and defeat, for not all these campaigns are victorious.

No resting here! No sleeping at the switch! It's up and at it, boys, or somebody will be swamped.

To the eye of the enthusiast there's a romance about it all, and the men who take part in the game, this modern tournament—for that is how they seem to regard it—are just as much heroes as any you ever read about.

They have some very expressive language, too. A great phrase was, "Go to it," with accent on the middle word. It meant go to your work instead of letting it come to you. "Beat him to it" meant to get there ahead of the other fellow, and was the favorite word of the Major General who commanded in this particular campaign to some lieutenant who had come to him with a tale of some railroad crew that was slow, or when some particular stunt was to be done so as to be ready for the morning.



MERCHANDISE BUILDING, FROM THE SOUTHWEST—SEARS, ROEBUCK & CO.

Chicago, Ill. Nimmons & Fellows, Architects.

The enthusiasms of the army that is engaged in a work like this building of the Sears-Roebuck buildings is something thrilling. It is like the ardor of battle. The whole organization is like a troop of cavalry in a charge under a good leader. They do not care what is ahead of them. The watchword is "Get there," and get there they do even if they are killed in the act.

I have a photograph of the leading men on the work taken on the occasion of the raising of the last timber of the Merchandise Building. This work was done in the rain. Some inglorious Milton has written on the picture:

"We raised the last post with many a shout,
As the rain in torrents fell,
And though our backs were soaking wet
Our breasts with pride did swell."

Nothing was allowed to stop the work. The sides of gondola cars were ripped off and thrown in the rubbish pile in order to get flat cars for use by the excavators (I wonder how some railroad men would like to read this). Once when they were nearly running out of material they confiscated an engine and ran without orders some fifteen miles to the transfer point where the cars of brick were waiting. Once a flat car ran off the track where a wall was to go, and the railroad crew delayed about removing it. The "officer" in charge asked if he should not brick it in. "Go to it" were the orders, and this was actually begun, but the subsequent arrival of the wrecking crew prevented the car becoming a part of the building.

The labor agitator had to get in his work, too. When they were digging the caissons a job in the heart of the city was paying five cents an hour more than the union rate, and a delegation of agitators demanded that the Sears-Roebuck rate should be raised. This was refused. Four of the leaders, who were the regulation toughs, went through the building and made the others quit. This before it was realized what they were doing. The agitators were driven out of the building, but they adjourned to a neighboring tavern and drank beer for about four days. They were warned that they would have to keep away from the job, as they were intimidating the men who wanted to work. This they refused to do, so they were arrested and fined $100 and costs, which meant 90 days in the Bridewell. And all served their time, as the tavern-keeper had got all their money.

At one time an army of 7,000 artisans and laborers were at work on these buildings. This army has vanished. It is succeeded by an army of gay young women and serious faced young men—but they belong to the quartermaster's department.

Theodore Starrett.

Fortress-Monasteries of the Holy Land

I have yet to come across a traveler to Jerusalem and Palestine who will not admit disappointment in many respects as a result of his visit to the Holy Land. All are agreed, however, that the ancient fortress-monasteries and hospices in the wilderness are not only a great boon on the practical side, but are marvels of savage mediaeval picturesque-



CONVENT OF MAR-SABA.

In the Desert, three hours from Jerusalem.

ness and wild strength, dating, as many of them do, from the time of the Crusades, when in many instances they had to do duty as fortresses.

As every traveler in Palestine knows, the Holy Land is an exceedingly exhaustive country for the voyager on mule or camel-back; the water is indifferent, and hotels practically unknown. What is usually done is to take a letter of recommendation and introduction from the Russian Archimandrite or other Patriarch in Jerusalem, and then, provided one brings one's own provisions, one may count upon some kind of shelter in these strange fortress-monasteries, which are usually built upon impregnable pinnacles of rock, or else nestle close up against some mighty arid precipice upon which the Syrian sun beats pitilessly.

At any rate, shelter here is better than the impossible *khans* or caravansaries, which are occupied mainly by mule and camel drivers and animals, and, moreover, fairly swarm with still more undesirable companions. The Latin monks

will be found gentle, obliging and unselfish; but although no ostensible charge is made, the traveler always pays a fair fee.

Very striking is the situation of the Greek Monastery of St. George, a forbidding and almost prison-like structure, which one passes on the six-hours' journey from Jerusalem to Jericho, by way of Bethany and the Tomb of Lazarus.

Just before the dark blue waters of the Dead Sea come into sight, and the great plain of the Jordan opens before us, we strike the deep gorge of the Wady el-Kelt, which is supposed to be identical with the Brook Cherith, spoken of in the First Book of Kings (XVII. —3, 5). It is here that the traveler beholds the Convent of St. George situated in the midst of that wild and desolate rock scenery so characteristic of the Holy Land. But even more impressive is the far-famed Monastery of Mar Saba, which one visits on one's way back from the Dead Sea to Jerusalem, a terribly trying journey of some eight or nine hours.

I well remember turning my back upon that dreary and desolate Sea, and entering the wilderness of the Kidron Valley. We there dismounted from our mules and climbed a trail consisting of rocky steps, finally arriving at an ancient watch-tower, whence we beheld our goal in the fantastic pile of buttressed buildings below us. Near the outer gate of the Monastery rose a second ancient tower, wherein we found a Christian watchman, who told us he was posted to scan the mountains and valley to see whether any Bedouin robbers or other dangerous visitors threatened to descend upon the Monastery.

I have never beheld so wild and fantastic a series of buildings. Viewed from the great terrace, whence one looks down into the valley, one sees the rocks on which the Monastery is built falling away so perpendicularly that lofty flying



THE CONVENT OF MAR-SABA—ANOTHER VIEW.



THE GREEK CONVENT OF ST. GEORGE.
In the Wilderness above the Brook Cherith.

buttresses have had to be constructed to shore up the enormously massive walls. I also visited several ancient hermitages on the barren heights beyond the valley, but found them in utter ruins and now occupied only by birds and jackals.

From the terrace of the Monastery to the bottom of the ravine is no less than 590 feet. Terrace after terrace of buildings rise, to culminate in a dome-covered structure whose interior is decorated with great richness and contains the empty tomb of St. Sabas, for whom the Monastery is named. The monks asked whether I would like to see their garden. I was indeed astonished, thinking it impossible that any green thing could live in this stony and burning wilderness.

Nevertheless, every available sheltered level spot had been cultivated by the monks, and I am assured that figs ripen here much earlier than they do in Jerusalem. We had no difficulty in getting quarters inside the Monastery after we had thundered and knocked on the tiny barred entrance and presented our letter of introduction. No ladies are admitted, it seems, under any circumstances; and if they are in the party they must pass the night in a tower outside the Monastery walls.

On entering one goes down about fifty steps to a second door, whence a second staircase leads to a paved court. Indeed, one might well lose one's self in these intricate galleries and stairways. A third stairway leads from the court to the guest-chamber, where bread and wine are provided; and there is also a kitchen for the use of the traveller and his servants. The Monastery at present seems to be used as a settlement for the most rigorously ascetic kind of Greek priests.

On inspecting the enormously massive masonry, which is yet crumbling from sheer age, one is not surprised to learn that the Monastery dates from the Fifth Century, St. Sabas having been born in Cappadocia about 439. As to its being a "fortress," this is not to be surprised at, considering the place was plundered by the Persians as early as the Seventh Century. One of the monks usually takes one around the place and shows the rock-cut grotto church of St. Nicholas, containing mysterious skulls behind a grating said to be those of martyred monks slain centuries ago by the Persian hordes.

At the back of this church are the chambers set aside for Greek pilgrims, and here also will be found the cells of the monks. These excellent but somewhat fanatical men eat nothing but bread and vegetables and fast with rigor and frequency. They are said to have a wonderful library; but I marveled how the unfortunate men could possibly endure such a living death. Their only amusement, so far as I could see, was feeding the wild pigeons and some other queer little black birds of the country. It is no wonder that the fifty or sixty monks in the Monastery of Mar Saba have in their charge a few lunatic brethren.

William G. Fitz Gerald.

The Architect and the Critic

I have been troubled always by the utter lack of rational explanation as to why, to-day, so great a distance separates the artist from the critic in matters architectural. Certainly we expect difference wherever taste is concerned. Who is not ready to meet, even to welcome, in all artistical discussions the charming obliquities of the Personal Equation and the infinite variety of the kalidescopic Point of View? But the "artistic variable" in any one of its multitudinous manifestations should not legitimately account in our judgments for more than for distinctions, discriminations, modifications — divergencies which, no matter how extreme they may be, still stop this side of fundamental differences. All that falls further over, as it were, on the other side of this line, and therefore really is contradictory or antithetical surely should not be regarded as coming fairly within the operation of the rule of De Gustibus or anything of the kind. Rather should too wide a divergence of opinion create instantly a fair presumption that all parties to the difference stand in immediate need, not of further argumentation, but of a searching examination of their fundamental principles. So I take it, there must be somewhere a false element or (to switch the simile) an undigested particle in the complete opposition that exists between contemporary architectural practice and contemporary architectural criticism.

"Architecture," the critic pronounces, "is dead. It is not any more a living art. It is a sort of man millinery—little better. The Ladies' Home Journal' tells my women-folk that skirts will be cut full this spring, or after the pompadour manner, and can I not see by the common practice that cornices are heavier this year and worn lower; the colossal order is in vogue and so forth. Do not tell me that the modiste and the architect do not meet on a common ground. Architecture is defunct." This may be so. On consideration, however, I ask how can I be sure of it, for the practice of architecture or the attempt to practice it continues. Indeed, with the critic's speech, and the tone of it ringing in my ears, I can almost with greater certainty bring myself to the belief that the defunct one is criticism. Yet, I know that conclusion is not true either. The very bitterness of the reproach against modern architecture indicates reaction. The dead do not indict the dead. But the phenomena remains—the architects on one side, the critics on the other. And the separation itself is not the deplorable aspect of the situation. The dark side of the opposition is the indifference, the real indifference, of the critic to all the architect does, or tries to do. And, on the other hand, we have to lament the complete apathy of the architect towards well-nigh everything the critic can conceivably say—except praise, and that he may lay on with a trowel. Apparently the architect has completely departed from the intellectual highway whereon (to transmute old Hooker's phrase) "the general and perpetual voice of man is as the sentence of God Himself," and the critic has retired from the Present and cloistered himself somewhere in the Past, making of architecture wholly a spectacle, an historical panorama, not (be the result artistically excellent or otherwise) a real and continuing element of social and æsthetic evolution.

Of course, the present condition of the architect's mind is disclosed best by his buildings. Very few members of the profession are at all able to "explain themselves." If any individual succeeds in formulating himself, or even some of his factors, and understanding his own practice, the resultant theory, description or explanation is wonderfully vague, and usually is so tenuous that it cannot be resolved into useful concrete

terms that may be passed, like a working tool, from hand to hand. Yes! If we would know the architect we must confine ourselves strictly to the building. But the critic! He is harder to get at. He may be "a terror for his size," but the race is not numerous. Are there a score of competent exponents of the theoretical side of architecture in the country? I don't know why I put the number at a "score" instead of a dozen or less, unless it be that one would be careful to eject the element of the ungracious from even a rough calculation. But, really, apart from a few names that we all know, who are our critics? No doubt much writing is done for architectural journals. There are also "papers" delivered before Society meetings. But, I think, we all agree these utterances are, in the mass, pretty poor stuff—straw with little grain. Perhaps we find an explanation for this barren state of affairs in the statement recently made to the head of a publishing firm by one of our busiest (should I not say, therefore, one of our greatest?) architects: "We've no time to read. All we need is pictures just to see what the 'other fellow' is up to." The man who spoke thus was not entirely fair, even to himself, but the fact remains that the critical body with us is so small, so withdrawn, so utterly "in opposition," it is impossible to produce sufficient testimony from American sources to establish indubitably the exact whereabouts of the "critical position" in regard to the mass of contemporary architecture. Lacking "domestic" evidence, no good American will object if we invite witnesses from France. It is somewhat of a boast with us to-day that we are near neighbors artistically to Paris. Even those who deplore the fundamental folly of the Greek Revival, the Gothic Revival, the revivals Romanesque, Queen Anne, and Classical, assure us that there is a special virtue in going to France for our Architecture, for they say Modern Architecture is really to be found there as a living thing. In that happy capital the art is taught and practised. To this belief is due the fact that after many "revivals" we have now instead an "importation," which is not only supposed to be a very vital addition to our artistical possessions, but something so essentially different from our attempted rifacimenti of the past that the claims made for the Gothic acquisition pass over, in a sense, into the critical field itself. The critic who said there was nothing fundamental in the Gothic or any other of our "revivals" that would be permanent was scorned of the passionate revivalist, and then justified by the fate of the revival. When he speaks likewise now regarding the French importation he is supposed to be dumbfounded by the appeal to Cæsar. It is French! And the French, you know, is the living modern form of architecture.

In order, therefore, to reform, assert and establish the "Critical Position" upon a broader basis than the United States alone affords, let us call in some alien witnesses. There is much discussion of architceture in French literature to-day, and let it be said at once, much of current French criticism has the same antagonism to current architecture, possesses the same pessimistic note that one observes in American criticism. De Baudot says: "Architecture is dead; our architects have killed it." H. Fierens-Gevaert applauds and adds: "We know passably how to compose a Roman palace, but we do not know how to create a house." Maquet, J. K. Huysmans and others express the same opinion. Henry Provensal assures the world that we can put in comparison with the great works of art only "pastiches médiocres." Pastiche! Banal! Mediocrity!—these are the words of judgment sown up and down the pages of current French criticism in regard to current French architecture. The critics across the water seem to be quite convinced that the modern architect proceeds in his work after the manner of the good stylist "who made a phrase and then sought something to put into it." The architect's case is diagnosed with painful unanimity to be one of brain atrophied by lack of effort, by a love for mere style devoted too exclusively to the work of past epochs. Vic-

tor Hugo said, but with another sense, "the book has killed the building." The Latin language is not a living speech, and we are told the architect, if he would work greatly must———. Well! Here is the quick of the subject, and it would be wiser for me to let the French authorities continue to speak themselves: "Architecture must discover the rational use of modern materials—iron, concrete, the glazed and enamelled brick, for example—and achieve a harmonious union of these new elements with the traditional elements—stone, brick, wood. This 'mis-en-œuvre' and these combinations will transform the repertoire of forms, lines, colors, and revivify the art of building. The Architect has before all to pre-occupy himself with the plastic qualities of his materials; he should feel, dominate those resources of construction and draw from them expressive results. It is by rebecoming constructor that the architect will rebecome artist." Undoubtedly this is the modern critical attitude towards modern architecture. Yet the architect is deaf. If he is artist at all he is repulsed by this wholesome, may I say? materialistic doctrine of progress. His attitude is rather that of Ingres toward music: "What seduces me is the design, the line." If he does not adopt quite so "intense" an incorporeal attitude he is likely to say with Taine: "Really to change any conception of a thing so general as form, what a change must be effected in the human brain." No doubt! And the critic would rejoin: "I am only pointing the direction that change must take if it is to be fruitful. Nature does not abandon Tradition or the Past; nevertheless she does not reproduce the extinct Æpiornis. Some adhesion to precedent is necessary, and means no more than an assertion of the validity of some experience. Greek and Gothic may be the settled precedents of good architecture, but let them be no more to us than 'points de repère.' American architecture depends too much upon a factitious inspiration. There is no mordant in our designs which have not bitten into the material. What, indeed, shall we say of an architecture that has never been established or conditioned by necessity. In recognizing what it is we also recognize that it might have been almost anything else. Thus, I fancy, the critic would, if he could, bring the architect to the Vicar of Wakefield's frame of mind: "To say the truth, I was tired of being always wise," and to Goethe's notion that no artist should say that reality lacks poetical interest, for he proves his vocation by winning from a common subject an interesting side. And by winning this interesting side from modern materials and modern necessities, the modern architect will be working as artists in other great epochs have worked, and having by these means established modern architecture in a vital form, he will come by and by to laugh at the archæological-architect, the maker of pastiche, the copyist, and sing with Holmes:

> I know it is a sin
> For me to sit and grin
> At him here.
> But the old three-cornered hat,
> And the breeches and all that
> Are so queer.

H. W. Desmond.





ANCRUM HOUSE.

GEORGE EDMONSON HOUSE, LEGARE ST.
Charleston, S. C.

Examples of Georgian Work in Charleston South Carolina

Charleston was founded in 1680 by English colonists under the leadership of Col. William Sayle, and during its early days was called New Charlestown. The city's geographical position is quite similar to that of Manhattan Island of New York City as it is bounded on each side by wide rivers, the Cooper on the east and the Ashley on the west, while the city itself faces the harbor to the southeast. The part of Charleston as laid out in 1680 extended from the sea on the south to what was a small creek on the north. On the east it was bounded by Cooper River and extended west to Meeting Street, and at the extreme limit stood a public market and the Church of St. Philip—the first English church in South Carolina. This site is now occupied by St. Michael's.

From the point which is now the corner of Meeting and Broad streets down to the Battery, eight streets intersected each other, namely, Tradd, Elliott, Broad and Queen running east and west, and Bay, State, Church, and Meeting streets running north and south. On Tradd street perhaps are found more Georgian houses than on any other thoroughfare in this old city. It is now a quaint, narrow and silent one and suggests strongly America of a century ago. On the



GATEHOUSE OF THE MANICAULT PLACE.
Meeting and Hudson Streets, Charleston, S. C.



ENTRANCE TO GEORGE EDMONSON HOUSE.

Charleston, S. C.

north side of this old thoroughfare between Church and East Bay streets stands what was in Colonial days the leading hotel of the city—the Carolina Coffee House. Here the Governor and his staff were guests and their receptions and banquets were given, for Tradd was a most prominent street in Colonial days. Any one interested in the architectural characteristics of Charleston should enter this historic old roadway at the Battery from which it takes its narrow and winding course past old iron gateways and high brick walls, overgrown with cypress vine and Virginia creepers; under the projecting hoods of doorways, toward the heart of the city, crossing at intervals streets and alleys quaint and curious. Looking down Longitude Lane and St. Michael's Alley one could almost imagine one's self in old Havana, while down Tradd or Queen streets toward East Bay, there are features which suggest the French Quarter of New Orleans.

In studying the old houses of Charleston we can readily place them in two classes. The one which is most peculiar to Charleston is San Domingo type—that is the three and four storied structures only one room deep, with their many storied verandas stretching the entire length of the house. They turn their plain fronts or in reality their sides to the street and the public, while the real front faces the walled-in garden. The other type of house in Charleston faces the street as we would naturally expect, and is usually set back therefrom and surrounded on three sides by the ever-present brick wall ten to twelve feet high, while to the rear of the house is the quaint old garden. To all old Charleston homes, as we find in all Southern towns, is a collection of numerous out-buildings—the servant quarters, the coach house and stable, the kitchen and several rubbish store rooms —all forming quite an establishment which in *ante-bellum* and Colonial days



Charleston, S. C. THE MARKET (1841).



(1) MILES BREWTON HOUSE (1765). (2) HORRY HOUSE (1790).

Charleston, S. C.

teemed with their retinue of many negro servants. The San Domingo house came naturally enough to Charleston for among its English and Hugenot immigrants were many derived from the West Indies; and since the climate they found in Charleston was not totally unlike that in Jamaica or Nassau or San Domingo itself, they naturally preferred the houses to which they were familiar. The San Domingo house, once transplanted to Charleston, developed and grew to be the fashionable house of the city during the latter half of the 18th century and up to the outbreak of the Civil War, although during the period of 1810-40 the white pillared houses of the Greek Revival gave promise to be a dangerous rival. In these San Domingo structures the entrance doorway did not lead into the house proper but to the veranda, as may be plainly seen in the illustration of the Edmonson house of Légare Street.

The arrangement of the rooms in these Charleston houses is much like that of the average English house, in that the drawing rooms, parlor and dining room are all on the second floor, the library suite and breakfast room on the ground floor, and the bed chambers in the third and fourth stories. This custom of having the *bel étage* at the second floor was probably for several reasons, because it was the custom in England—Charleston was a veritable English city in its early days—and again because it was necessary to have the women and children of the family as high as possible above the morning mist and malarious atmosphere. This point gives the houses of this part of the far South an air different from those in Virginia and Maryland and we must add that the latter suggests hospitality of a more generous type. It is much easier to step down a few steps from the ground floor to meet your guest than to run down a whole flight of stairs and toil up again, so we are tempted to believe that the greeting of South Carolina was somewhat different from that of Virginia—the latter a more cordial and informal one while the former smacked more of state and dignity. But we are quite sure that the guest was quite as welcome to the one as to the other, and



FLYNN'S PRESBYTERIAN CHURCH (1811).

it is difficult to decide which outdistanced the other in hospitality and lavish entertainment.

Undoubtedly the best piece of Georgian work south of Virginia is the Miles Brewton or what is now the Bull-Pringle house in Charleston, situated on lower King Street. It suggests strongly "Shirley" and some other Virginia houses, which are of this two-story porch treatment of the Georgian. The elaborately designed entablatures of both the upper and lower stories and all the woodwork of the interior are very much on the order of Northern Colonial work. The house was built by Miles Brewton in 1765 and was occupied by him for many years. After his death the place descended to his three sisters, one of whom was Mrs. Rebecca Brewton Motte, the famous heroine of the Revolution. She was occupying the house



"DRAYTON HALL," ON THE ASHLEY RIVER (1740).
Charleston, S. C.

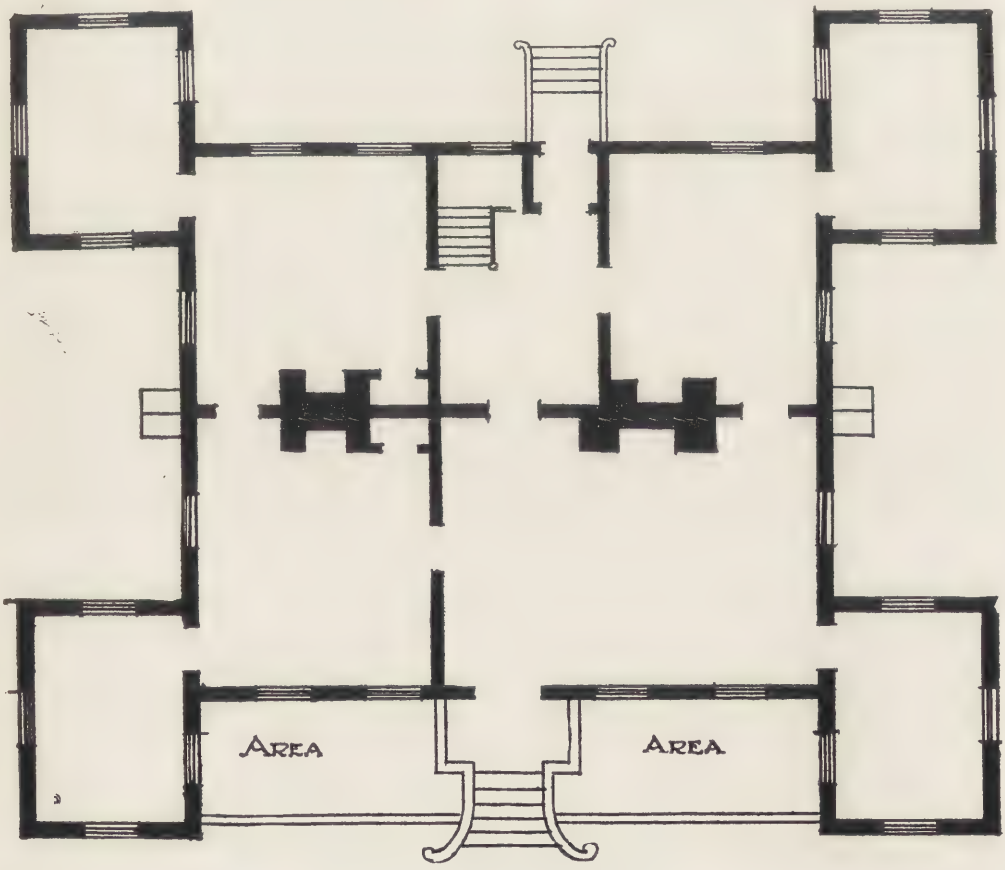
during the war, when it was seized by Sir Henry Clayton to be used as English headquarters, and afterwards turned over to Lord Rawdon. This fact of its being used as headquarters by the British perhaps saved it from the destruction to which so many other Charleston houses fell victims. During the Civil War it was again used as headquarters by the invading army and once more saved from pillage and from the torch. Mrs. Motte was also the occupant and owner of two other houses of historic interest. One was on the Congaree and was taken during the Revolution by the British and called Fort Motte, and it was Mrs. Motte herself who fired it to compel the enemy to evacuate. The other residence of Mrs. Motte was "El Dorado" on the South Santee which only a few years ago was destroyed by fire. The Miles Brewton house is now occupied by the Pringle family who are descendants of Mrs. Motte. The house fronts on King Street and the grounds at the front, which are somewhat limited in area, are protected on the sides by brick walls fifteen feet in height while at the front is a wrought iron fence with spikes of quaint mediaeval design. The Brewton slave quarters are to the right of the house and are rather peculiar in design, having pronounced Gothic motives. At the rear of the house is the garden set with flower beds and rare old shrubs resplendant in the color which we always find in a semi-tropical climate. It has been kept wonderfully intact although the area has been reduced somewhat—for even to-day can be found here the old-fashioned tulips, jonquils, daffodils and peonies



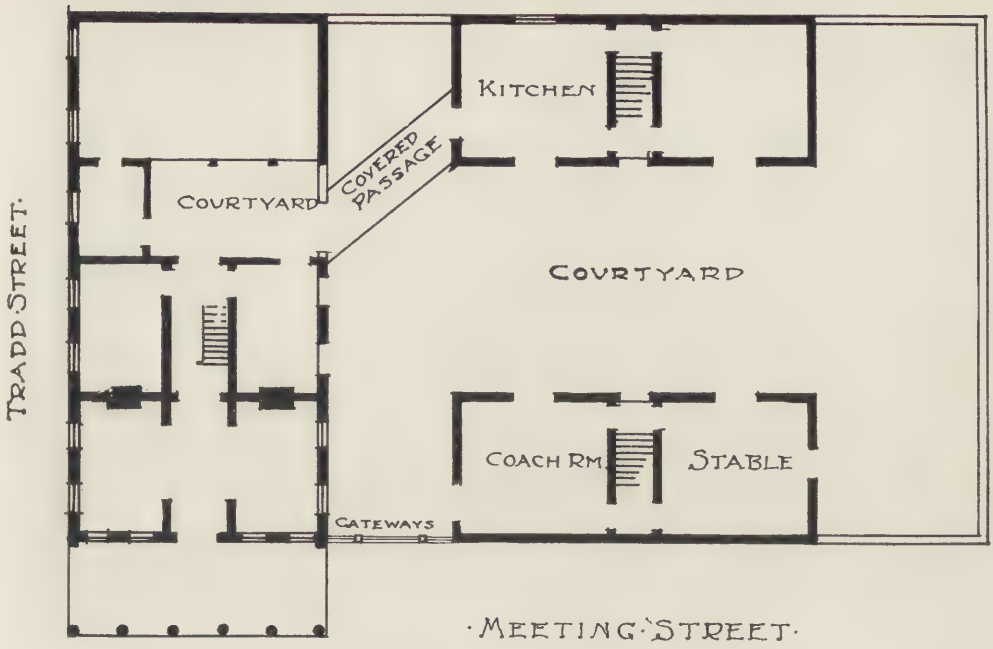
"MULBERRY CASTLE," ON THE COOPER RIVER (1714).
Charleston, S. C.

which bloom out perennially in their verdancy and luxuriousness. The wistaria has climbed rampant over the branches of the immense oaks with its weighty leafage and deep blue tassels. The interior of the Brewton house is most elaborate and dignified in design; the drawing room on the second floor has been pronounced by many authorities on Georgian work as the most beautiful Colonial room in America. The room is of a long rectangular shape with rich dado, panelled walls, a coved ceiling and well designed cornice, the color of walls and woodwork all being white.

One of the interesting old places in the vicinity of Charleston is "Mulberry Castle" on the Cooper River. It was dubbed its peculiar name on account of the many mulberry trees planted on the grounds as an experiment in the silk culture, which was for a time considered a success because silk of a very superior grade is said to have been produced. The bricks used in the house are unusually good and in all probability were brought from England. They are varied in shade, the darker and overburned ones being used at the corners and openings as quoins. Parts of the roofs have been covered in recent times with metal shingles, the only original cypress shingles being on the upper roofs to the corner towers. Seen at a distance from the low-lying rice fields "Mulberry Castle" with its quaint corners, pavilions or towers, presents quite the appearance of being the seat of some feudal lord. The weather vanes surmounting these towers are stamped with the date of 1714 and it is safe to presume that this is the date of erection of the structure. The first



Charleston, S. C. PLAN OF "MULBERRY CASTLE."



Charleston, S. C PLAN OF HORRY HOUSE.

lord of the estate was a staunch churchman and at the same time was a man of military characteristics. Many tales are told of the fights and skirmishes which have happened around this old place both during the early Indian troubles and during the Revolution.

"Drayton Hall," like "Mulberry Castle," is one of the few old country seats in the vicinity of Charleston which escaped the torch and pillaging hand of Federal troops during the Civil War. It is situated on the Ashley River and was built in 1742 by John Drayton, the eldest son of one Thomas Drayton, who came to South Carolina from the Barbadoes, and himself the father of William Henry Drayton, who distinguished himself so gallantly during the Revolution. The house is said to have cost $100,000 and is built of brick and marble brought from England. The columns to front portico are of this white marble, and the work is most excellent in detail. The interior woodwork is chiefly of mahogany, richly carved and panelled. The rooms are teeming with family portraits, and family heraldic devices are worked into designs in the woodwork. Drayton Hall was the scene of many brilliant events of the early times of South Carolina. Its occupants being of good birth and people of refinement and culture, their dinners and balls are said to have been the most brilliant of that time. Great stories are told of Drayton Hall on such occasions—the light of myriad tapers, the tapis laid from its entrance door to the gateway to protect the dainty slippers of my lady when she should alight from the carriage and to keep spotless the airy lace and silk of her gown.

A peculiar version of the San Domingo house is found in the Ancrum house in Charleston, the two-storied porch being set at the sidewalk line and facing the street. The family entrance is at the end of the veranda floor level, while the servants' entrance is a doorway leading under the veranda floor directly from the sidewalk. The overhanging alcoves or bay windows were undoubtedly added some years after the house proper was built and are to be deplored. To the left of the house is a garden with high wall, a glimpse of which the passerby can only get except through the surmounting balustrade. Creeping in and out the balus-



WITTE HOUSE (1810).



DRAWING ROOM OF THE WITTE HOUSE.

Charleston, S. C.

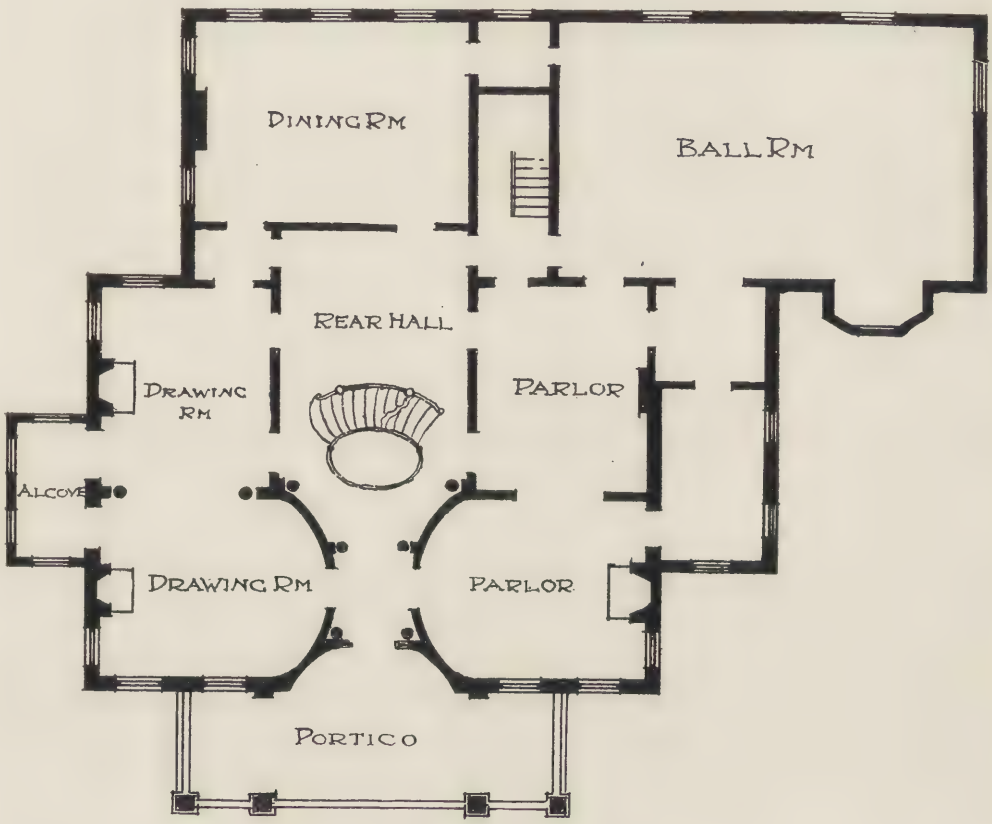
ters are rich green festoons and hanging masses of woodbine, giving a quaint look to the weather-beaten and weather-stained stucco of the wall.

The lines of portico to the Bull house can hardly be distinguished because of its covering of vines and climbing creepers, which have roamed without restraint around the columns and up over the cornices. The house is without a tenant and is poorly kept, its stucco is fast peeling off, the marble steps are weather-beaten —and while admiring the good detail and the motives and the delicacy of their mouldings, one's pity and indignation are aroused at the deplorable ruin to which the place seems destined.

Flynn's Presbyterian Church (now Second Presbyterian) was built in 1810-11, and fronts on Wragg Street. It is late Georgian in many of its characteristics and yet possesses many features suggesting the Greek Revival—a style which from 1815 became the accepted standard for so many buildings in the far South.

Perhaps the best of the Greek Revival houses in Charleston is the Witte house on Rutledge Avenue, built in 1810, and evidently planned for elaborate entertainment. While including this building in the Classic Revival we see many motives which are survivors of the Georgian, such as the Scamozzi Ionic order. The way in which the entrance doorway forms the portico floor in the second story is also a Georgian motive. The place is situated at the end of a street and the house built far back from the street amid its oaks and magnolias of most luxurious foliage.

In the Witte house we find a plan much



Charleston, S. C PLAN OF WITTE HOUSE.

on the order of the other Charleston houses—the library and breakfast room being on the ground-floor, the drawing rooms, parlors, dining-room and ball-room on the second floor, and the bed chambers on the third. The drawing rooms with their vaulted ceilings are perhaps the most ornate rooms in the house. They are divided by an elliptical arch the ends of which are supported by detached columns whose capitals are Byzantine in effect. From one of the drawing rooms one may wander into the little alcove through a doorway with the wide panelled jambs. The treatment of these drawing rooms is undoubtedly Georgian. The mantel with its short stubby Ionic columns is of richly colored Sienna marble. To the right of the hall-way are the parlors and further to the rear the dining room, while still further back is the large ball-room. A unique feature of this Witte house is the oval stairway. It is self-supporting from each floor to the one above, and is built entirely independent of the walls, thus saving space and giving the rear hall a roomy effect. These oval and circular stairways in Charleston must have served as models for the many others in Savannah of a much later date as well as many more we find over the South in the white-pillared Classic Revival houses.

At the corner of Meeting and Tradd streets is one of the former homes of Mrs. Daniel Horry of French Santee, who was an intimate friend of General Francis Marion, famous in Revolutionary War history. Mrs. Horry's country home was "Hampton" on the South Santee, which was occupied by her during the summer months. The Horry house in Charleston was built between 1780 and 1790. As can be seen in the plan the house is entered from the front portico, which occupies part of the sidewalk. It is divided by a long hallway extending to the court in the rear, and at the back of this hall is the stairway of two flights leading to the ornately designed hallway of the second story. All the drawing rooms are on this floor and have well designed cornices and doorways with surmounting pediments. The outbuildings around the old paved courtyard consist of the kitchens, the laundry, stables and coach house, along with the servant quarters——all kept private from the public by the surrounding masonry wall. One of the peculiar and interesting features of many of these old Charleston houses was the custom of having attic wine-closets. Here the noted "Jockey Club" and "Belvedere," along with many other madeiras were aged. It is said that the heat from the roof, and the slight tremble to the house caused the desired fermentation. Most of the wine, however, has disappeared, but in some of the cellars of the oldest and richest families a few dozen bottles can be found to-day, which are "more valuable than fine gold" as they have become family heirlooms.

J. Robie Kennedy, Jr.

Two Houses by Robert Spencer, Jr.

ARCHITECT

Adams House,
Indianapolis, Ind.

House of Dr. Percy,
Galesburg, Ill.



THE ADAMS HOUSE.

Indianapolis, Ind.

Robert Spencer, Jr., Architect.



THE ADAMS HOUSE—ANOTHER VIEW.

Indianapolis, Ind. Robert Spencer, Jr., Architect.



THE HALL OF THE ADAMS HOUSE, FROM AND TOWARDS THE LIVING ROOM.
Indianapolis, Ind. Robert Spencer, Jr., Architect.



THE DINING ROOM IN THE ADAMS HOUSE.
Indianapolis, Ind.
Robert Spencer, Jr., Architect.



THE LIBRARY AND DETAIL OF FIREPLACE, ADAMS HOUSE.
Indianapolis, Ind. Robert Spencer, Jr., Architect



OTHER INTERIOR VIEWS OF THE ADAMS HOUSE.

Indianapolis, Ind. Robert Spencer, Jr., Architect.



TWO VIEWS OF THE DINING ROOM, DR. PERCY'S HOUSE.
Galesburg, Ill. Robert Spencer, Jr., Architect.



(1) STUDY, (2) BILLIARD ROOM IN THE BASEMENT, DR. PERCY'S HOUSE.
Galesburg, Ill. Robert Spencer, Jr., Architect.



SIDEBOARD AND CHINA CLOSET IN DINING ROOM, DR. PERCY'S HOUSE.

Galesburg, Ill. Robert Spencer, Jr., Architect.



FIREPLACE IN DINING ROOM, DR. PERCY'S HOUSE.
Galesburg, Ill. Robert Spencer, Jr., Architect.

NOTES & COMMENTS

BOSTON'S "TOWN ROOM"

The opening of the Town Room in Boston is an event as significant and interesting as its name is quaintly simple and altogether apt. It is the New England version of that idea which in Chicago found successful expression a year ago in the opening of the Municipal Museum. The Massachusetts Civic League, with a view to acting as a central office for the assistance of the thousand or more organizations in the State which, independent of the churches and schools, exist to improve the physical and social conditions of their environment, has established and has undertaken to maintain this room. But to say this is to name, as doubtless he would wish, an organization—his organization—for that individual, Joseph Lee, whose idea the Town Room mainly was and who personally compassed its realization. The purpose is to collect here material illustrative of and likely to be helpful to villages and towns, and necessarily to some extent of cities. The subjects to be illustrated include out-door art, public buildings and those many activities that come under the general head of civic improvements. All this material is made quickly and comfortably accessible, and it is designed that the Town Room shall be a meeting place for conferences and an intellectually stimulating sort of club where the members of village improvement societies who chance to be in the city can drop in, feel at home, and, incidentally, get practical assistance and suggestion. Interesting as is the idea, the physical preparations for its carrying out have been not less thorough and charming. The Room is in the house next to the new home of the Twentieth Century Club, on Joy street, that has been bought by Mr. Lee, and that, suitably fitted up and served by the same elevator, is practically an annex of the club. Situated on the top floor, with the rafters showing, with a big fireplace; wholly homelike and quaint in its construction, with cosy alcoves lined with shelves; with artistic furniture at once practical and comfortable—all of it apparently from arts and crafts societies; with its decoration such that photographs are not put out of countenance, the room soothes as its contents stimulate, and it makes its appeal to one as an individual and not (after the nature of museums) as an irresponsibly small section of the public. Hence it is the more likely to be effective.

RESTORING THE PARTHENON

Is it too late to say that "the restoration" of the Parthenon, proposed by the International Congress of Archaeologists at its recent meeting in Athens, does not mean the kind of restoring that is given to English cathedrals? The suggestion is not to replace missing bits of marble by new ones, but merely to put back in place, as far as practicable, the fragments that now lie scattered on the ground, making vertical that which time and accident have laid horizontal. Certainly there ought to be no hue and cry against this. A member of the Congress, in a letter to the "Transcript," of Boston, points out the essential but absurd incongruity of the scene upon which the ancient Parthenon looked down, when "up the southern flank of the sacred hill in the burning sunshine toiled the savants, elegantly and inappropriately garbed in black, with shiny silk hats upon which the eternal dust of Athens spread." He adds that at 2 o'clock, the hour appointed for the opening ceremony—which one might liken to a sacrifice to the Parthenon—"the temple was well nigh blotted out by the cosmopolitan crowd of its adorers. Every portion of the ruin which could afford a perch was sat upon, and fringes of dangling legs showed against the background of ancient marble." When the delegation descended the Acropolis it was replaced by "an eager Athenian mob, bent upon snatching the remnants of the feast they were satisfied must have attracted the Congress to the scorching top of

the rock. It may be that a subtle element of truth underlies this picnic theory of the main object of conventions. It deserves consideration. The mob probably reasoned, with a more acute if more instinctive knowledge, that the Congress would restore itself before it restored the Parthenon." This irreverent picture of the awesome gathering is worth a note for its undoubted realism.

OLD MURAL PAINTINGS RESTORED

An event of artistic interest that has somehow escaped much notice is the reconstruction, or restoration, of the Nefflen frieze, in Huntington Hall, Boston. The original decoration, put on by Paul Nefflen in 1871, was probably the earliest mural painting of considerable size in the country, antedating La Farge's Trinity Church decorations by some five years and Hunt's Albany decorations by seven years. But it was executed in water colors, became much stained and discolored, and in 1898 was painted out. Twelve subscribers to the original work gave the impulse to the movement for its restoration, these twelve including, among others, Professor William R. Ware, F. L. Olmsted, Mrs. James P. Munroe and Dean Burton. The famous free lectures of the Lowell Institute course are given in this hall, and with the opening of the season of 1905-6 the public had its first view of the restored frieze. In a careful description, published ten years ago in the "Technology Review," it is said that Nefflen's sketches, though often crude, had much of the spirit and action of the operatives in the different trades illustrated. His methods, too, were quite simple. "It is astonishing," says the "Transcript," "to see how he simplified and flattened out a complicated cotton printing machine, so that it is not at all unsuitable for wall decoration." A historical interest has also come to attach to the paintings, in that many of the methods of work depicted have now become obsolete. The group in the central panel behind the platform shows a blacksmith and sailor and was the original suggestion for the Technology seal. Next were allegorical figures, and beyond, on the right, chemistry and mining, and on the left engineering and architecture. Various Massachusetts manufactures are illustrated in other panels, the artist having visited with his sketch book factories in many cities to obtain material. The rope walk of the Charlestown Navy Yard is a bit of local color.

CARCASSONNE

The visitor fortunate enough to see this wonderful old fortification for the first time on a spring-like day, when the brilliant sunlight brings out distinctly the snow-clad tops of the far-distant Pyrenées, receives an indelible impression. No description of this picturesque group of buildings, of the two lines of massive gates and rough walls, running irregularly around the top of a hill, punctuated by over fifty towers, enclosing and protecting a fine church, a château and many interesting old houses—no description, no photograph, can give an idea of the reality. It is like one of the fairy tales of the "Golden Age," which then seemed more real than any tangible castles of later life.

I happened to be there alone on such a glorious morning. The "gardien," at first reluctant to accompany one lone tourist around the tiresome circuit of the walls, became enthusiastic after a while, dwelling with loving admiration on the good work done by the French Government in rescuing the crumbling old pile from complete ruin, and, with considerable intelligence, pointing out the skilful additions made by M. Viollet-le-Duc, in the course of his restorations. Time is fast blending the new work into harmony with the original stone, and, as sufficient money accumulates for the purpose, modern improvements are being removed. Just now they are tearing down the little tumble-down houses that, for hundreds of years, have clung like barnacles to the foot of the inner circle of walls. The beautiful architectural atelier of Viollet-le-Duc is kept almost as when he was drawing there. Models in plaster, of gargoyles and finials, hang on the walls and from the rafters of the old round tower; in the deep embrasures of the windows, his benches and board still stand.

"See," said the custodian, "how he moved his drawings from window to window as the sun followed him around."

I asked permission to take a photograph of the view from the west window. The man made such haste to throw open the lattice that his clever little "caniche" jumped up on the sill, barking excitedly, nearly falling out when he found me arranging my camera on the drawing board behind him.

Viollet-le-Duc, with his amusing discursiveness, gives a curious account of the siege in 1240 by Trencavel, quoting a report by the "senechal de Carcassonne, Guillaume des Ormes," addressed to "La Reine Blanche,"



"THE WALTON."

Southwest Corner 70th Street and Columbus Avenue, New York City. **Israels & Harder, Architects.**

regent while St. Louis was away in the Holy Land. Of course, at that time only the visigothic enclosure existed, although later the King and Phillippe le Hardi greatly extended the fortifications, regarding this as a fortress of the greatest importance. The letter contains vivid pictures of the attack and siege, of mines commenced by the "Vicompte et ses complices," frustrated by counter mines as soon as the defenders heard the noise; of the tragic death of "the thirty-three priests and other clergy, who were discovered by 'ces malfaiteurs' the day after their entry into the city," etc., etc. It describes at length their stock of wheat and meat and the ability of the brave defenders to wait, if necessary, for aid from Her Majesty.

Quaint little drawings of men-at-arms, rushing to the rescue of comrades engulfed by a sudden fall of the walls due to unsuspected undermining; massing at a weak point near some great gate to ward off an onslaught of the enemy, or firing from a movable tower, are interspersed with the text.

At Carcassonne the old times return once more; heroes, clad in the splendid armor of seven hundred years ago, march back as we dream of life in the middle ages, and engage in a hand-to-hand combat, that seems more strenuous than our modern battles, although where a hundred died then, hundreds of thousands die now, when with cannon we fight an unseen enemy miles away.

K. C. B.

STREET TRAFFIC IN SAN FRANCISCO

The convenience and adequacy of urban traffic arrangements are a vital factor in affecting the modern city's prosperity and growth. Recognizing this, the Merchants' Association of San Francisco recently engaged William Barclay Parsons to make a report that should contain recommendations for a proper handling of street traffic problems in San Francisco. This report, which at once corrects and foresees, has been made public. Mr. Parsons visited the city, studied carefully the local conditions and handed in a report that included recommendations which had not been expected by the association. These embraced an emphatic advocacy of the overhead trolley as distinguished from the transmission of the current by underground conduits. Mr. Parsons begins his report by calling attention to the topographical peculiarities of the city, and finds it a pity that in the original plotting these were disregarded and the streets located without reference to gradients. He thinks the commercial and residential sections of the city definitely fixed, and says that as Market street is, and must remain, the principal artery of travel, the retail district may be expected to follow its general line, spilling over into the streets adjacent on the north so far as the grades are moderate. The only territory within the corporation limits that is still open, in his opinion, to a really great residential development is to the south and southwest, and he points out that if such growth is retarded by paucity of transit communication "the suburbs across the bay will receive an increased stimulus and will serve as dormitories for the future population." Submitting then a quantity of statistics showing the city's recent actual growth in population, the rate and direction of the growth and the varied density in different districts, he supplements these with data on the existing street railway facilities. San Francisco is unique among cities of the United States, he says, in the diversity of the methods of operation that are still in use. On some lines horses are retained, as they are nowhere except in New York; and the cable, discarded elsewhere, is still in use on routes with steep grades. In addition to these methods, both electricity and steam are used. He urges, "as the most radical and fundamentally far-reaching improvement that can be made," the "abolition of all forms of motive power except electricity," and that the system of electrical operation be uniform. A great deal of space is devoted to the argument in favor of the overhead as distinguished from the conduit system, the practicability of thus securing uniformity, the economy of construction and of operation being main positive reasons in its favor, while the easy blocking of the conduit slot provides the negative argument. In regard to the poles, he urges that they be artistically designed, be combined trolley and light poles—so doing away with two sets, and that on Market street they be placed between the tracks in the center of the street. Feed wires should as rapidly as possible, he urges, be placed everywhere in ducts below the surface. Mr. Parsons records himself as opposed to the suggestion of a subway for Market street, but thinks that two should be constructed under Nob Hill, now mounted by heavy grades. These would not only permit a fast service westward, but would permit a radical street improvement. Into this, which consists of regrading street surfaces on the east slope of



THE PROJECTED SINGER BUILDING.
(From the Architect's Drawing.)
Broadway and Liberty Street, New York City.
Ernest Flagg, Architect.

Nob Hill, building terrace walls, constructing winding roadways suitably parked, he goes with some thoroughness, suggesting that one of the streets be made a grand boulevard, 392 feet between buildings. If the treatment is unusual, the conditions, he says, are not to be found in any other city of the same size and promise in the world. With this report and that of Mr. Burnham, San Francisco has much to think of.

BRIDGES IN BOSTON

The year 1906 in Boston promises to be more than usually important in the matter of bridge building. If there are under way no structures as striking as the new East River bridges in New York, where the necessities of commerce in exalting the bridges emphasize their prominence, the Charles River dam—which is to be bridge as well as dam—will affect the physical aspect of the city more vitally and nearly than do the bridges of New York. And there are four other great structures under way. The completion of the one across the Charles at Cambridge street will be put to the credit of this year. The dam, which might have been almost built out of the reports and articles written about it and the labor put into their preparation, will begin to take visible shape, and the bridge across the Charles at Brookline street will have been well started. In addition to these three river structures there are two big bridges over Fort Point Channel. Of these, the one at Northern avenue is not much more than begun. That at Cove street is already one of the most peculiarly shaped, as it has been one of the most difficult to build, in this country. Crossing the South Station railroad yards, as well as the channel, nearly every one of its seven long spans is at an angle with its neighbors, so that the general shape approaches that of an S. The completion of this bridge will probably go to the credit of 1906, helping to make the year really notable in this department of Boston's public works.

RESTORATIONS IN VENICE

When the Campanile fell we learned a sad lesson. I say "We," for does not the whole world have a share in the fortunes of the "Queen of the Adriatic"? Are not her mishaps ours? Returning to Venice after years of absence, the loss of the Campanile reminds us of the number of other buildings apparently in the same dangerous state. We wander around the beautiful old city, counting the towers leaning far out from the perpendicular, noting the bulging walls, the tattered cornices, the scaling brickwork, and weakened arches. Of course, the ruin and decay add greatly to the general picturesqueness—much of the new work is a vile imitation of the old. It is therefore with an anxious eye that we watch those who have undertaken this endless task. The attempt to lift Venice to a wholesomely sound condition seems more difficult than the manufacture of that famous rope of sand.

Some of the finest churches are now filled with scaffoldings, where masons are busily working to stop the fast-opening cracks. The great pictures which hung on the walls, concealing the mischief behind, have been carefully removed, placed in the chancel and surrounded by a high wooden paling to protect them from injury. For the first time in three or four hundred years it is possible to see these masterpieces in a good light.

S. S. Giovanni e Paolo is now undergoing such repairs. At the door I was stopped by a man in uniform, who exacted ten cents toward the expenses before he allowed me to enter. After a leisurely inspection of the wonderful old tombs of the Doges and of the splendid paintings, which are, for the first time since leaving the studio, hung near the ground, where one can see them to advantage; after renewing my acquaintance with the church, I asked the courteous old sacristan to show me where the repairs were being made.

"Have I not given fifty centissimi to pay for the restorations? I wish to see that my money is being expended to the best advantage!"

The old man, slyly glancing at me to see whether my unusual request sprang from idle curiosity or real interest, led me up a long plank leading through a window, down and around the transept outside, where the black mud had been dug away to expose the unstable foundation under a brick wall. My eye followed a long, ominous crack in the arch over the great window.

"We are driving piles down to strengthen the wall, which is settling unevenly in this soft mud. It is with infinite labor that we have already put in two hundred logs around the apse." Then, pointing to a group of a dozen men hauling on a rope attached to a weight which they were about to let fall on the head of the partly-driven pile: "You will see here the way the work has been done in Venice for over a thousand years."

I watched the picturesque group, thinking of the noisy, ugly machine that in America lowers more logs in a day than these twelve men could in a month.

"Without their song they cannot work," explained my guide, in quaint French, "it is necessary to use their muscles in unison. Listen!"

The men broke out in a plaintive, sweet old chant, the words of which I could not at first distinguish. As I waited they repeated it again and again, each time letting the weight fall, lowering the log an inch or two:

"Beating the piles while we chant,
From the first hour until the last,
At the fortieth we will pray to the Virgin
For strength to begin again
And continue till the Ave Maria."

The scene was worthy the brush of a Titian. The fine looking men in well-worn garments of the rich colors that Italians love, the graceful poses taken in hauling on the rope, the background of Venetian brickwork, combined with the haunting sweetness of the song, made me reluctant to go. As I turned at last to follow the sacristan into the church one old workman slyly held out his hat, with a roguish twinkle. I threw in some nickels, more, probably, than he had expected, for he called after me in fervent Italian, "You have given enough not for me alone, but for all to drink your health in good wine. Indeed, through your generosity, we can do it in brandy, which will greatly increase our ability to work well to-morrow!"

K. C. B.

COMPETITION FOR WORKMEN'S DWELLINGS

As yet there has been less heard in this country of the "Milan Exhibition, 1906," which finds its excuse in the inauguration of the Simplon tunnel, than the exhibition probably deserves. Milan is so much in the path of American visitors that there is likely to be a large attendance from this side of the sea. The grounds are readily accessible, the plans are on a lavishly attractive scale, and the exhibition's international sections include such interesting divisions as "transportation by land and sea, current and retrospective," aeronautics, decorative art, working industrial arts, public hygiene and "sanitary assistance in transports." One of the features will be an international competition for models of workmen's dwellings, appropriate to conditions in northern Italy. The competition is in three divisions—models of separate houses or blocks, (a) for workmen living in large towns, (b) for those in small towns, (c) for factory hands living with their families at a distance from town. Provision must be made in each case for small as well as for large families—the homes to have from one to four rooms each—and every scheme must be adapted to the lodgment of 700 persons, divided into 200 families. In the first and second division the assumed site is a free rectangular area bounded by four streets; in the third the competitors may design the site to suit themselves; but in the case of both the second and third there must be assumed a possibility of no available sewage accommodation, and competitors will be expected to show a way to meet the difficulty. The awards will be determined by technical, hygienic and economic conditions.

CIVIC CENTERS IN SMALL TOWNS

One of the "press bulletins" of the American Civic Association has pointed out the spread to small towns and cities of the idea of grouping public buildings so as to form "a civic center." At Springfield, Ill., the grounds around the postoffice building are adjacent to the city hall and the new public library, and a movement to develop them artistically has thus the merit of proposing to create a truly civic beauty spot in the center of the city. Even in little Red Wing, says the bulletin, there is a suggestion that Broadway Park, upon which the auditorium, library and some churches already front, be persistently developed as a civic center, with the idea that its impress will stamp a lovely individuality upon the town. In Columbus, O., one of the features most emphasized by Messrs. Lowrie, Kelsey and Robinson—whose advice the Park Commission recently sought—was the redeeming of the river banks for one block where the stream makes a turn into the very heart of the city. It was pointed out that if this were done the movement would probably not stop there, as there would be a popular demand for the extension of the work up and down the river. There could hardly be a sign of brighter promise for the betterment of physical conditions in cities than this appearance of a readiness on the part of communities which are still relatively small to make the most of their opportunities—so often excellent.

Glazed and Colored Terra-Cotta

In the series of articles which the Architectural Record has been publishing upon the way in which terra cotta has been, is being, and should be used in American building, our chief purpose has been to associate as closely as possible the use of terra cotta with its characteristic qualities and its peculiar advantages. Each of the several materials which enter into the structure and ornament of modern buildings possesses certain advantages over other materials for certain purposes. Some kinds of stone, for instance, will continue to be used in certain classes of buildings. In the same way, composite materials, with cement as their basis, are steadily forcing their way into more general employment. Artistically, they often suffer from a certain unattractiveness of ap-



DETAILS OF WHITE SEMI-GLAZE TERRA COTTA.
For Hudnut Building, 115-117 East 29th Street, New York City.
By Standard Terra Cotta Works. Henry Ives Cobb, Architect.

pearance, which must be remedied either by the use of some veneer or by faking the material to look like stone. Finally, terra cotta is, also, for certain purposes, beyond competition; and its value for these purposes is the result of its comparative lightness, the possibility of moulding it before hardening, its strength, its ability to resist fire, and, finally, the chance it offers of obtaining an agreeable texture and colored surface. And of all these advantages, those that are most inimitable and most beyond competition are the result of glazing and coloring. Terra cotta, when glazed and colored, serves an aesthetic purpose, which cannot at present be served in any other known way.

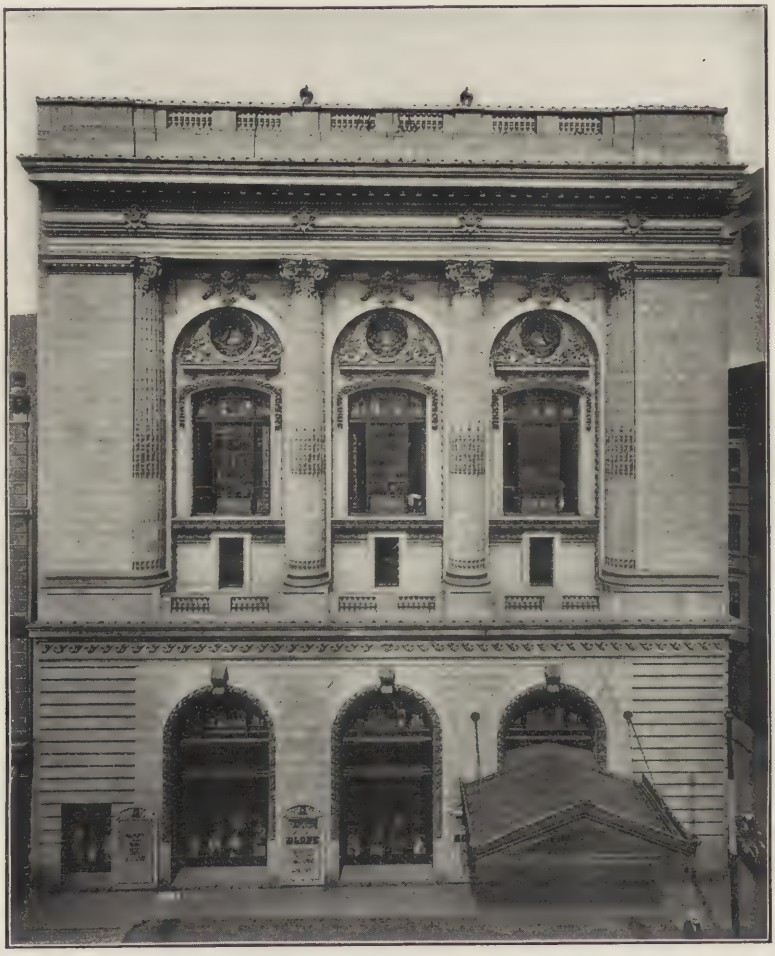
That the possibility it offers for textual and colored treatment are the qualities which place terra cotta in a new field will be appreciated after a short consideration of its other less peculiar advantages. That terra cotta is lighter than stone is unquestionably in favor of the material. Mr. Geo. B. Post has



ENTRANCE TO BOYLSTON CHAMBERS, BOSTON, MASS.
Cream Enameled Terra Cotta, by Northwestern Terra Cotta Co. Clinton J. Warren, Architect.

taken advantage of this quality in the buildings for the College of the City of New York, now in course of construction. He has used a cream-colored. sand blasted terra cotta for all window and door trim, mullions, cornices, string courses, ornament and dormer

glaze in place of a bright one. The fact that terra cotta can be moulded before being burnt undoubtedly leads to its use for certain kinds of architectural ornament; but here again cut stone is a close follower, and for certain purposes a successful competitor.



MAJESTIC THEATRE, BOSTON, MASS.

Terra Cotta furnished by Atlantic Terra Cotta Co. John G. Howard, Architect.

windows. This highly resplendent material has, in fact, been used here in such large quantities that the buildings are not agreeable to the eye on a very bright day on account of the great contrast between the terra cotta and the dark field stone of which the walls are built. This defect, if such it be, could easily have been remedied by using a dull

But when an architect wishes a lively color to be an integral part of the exterior design of his building, he has no alternative but to use terra cotta. The Italian architects used parti-colored marbles to obtain similar effects; but marble is much more expensive, and its range of color is comparatively limited. To secure an aesthetic polychromatic



FISHER BUILDING, 97-103 EAST HOUSTON STREET, N. Y. CITY.
Cream White Glazed Terra Cotta, Vellum Finish.
By Excelsior Terra Cotta Co. C. H. Caldwell, Architect.

effect, there is nothing like glazed and colored terra cotta, and it cannot be doubted that the great future success of terra cotta in this country will be associated with its enlarged and improved use as highly colored material.

It should be added that this is a comparatively novel as well as a peculiarly characteristic employment of architectural terra cotta. In the past terra cotta has been applied to buildings almost exclusively for purposes of figured and patterned ornament, and in the great periods of architectural design in Greece and Italy the opportunity it offered for vigorous modeling made it popular with architectural sculptors. But enameled and highly colored terra cotta was not extensively employed for architectural purposes. The Greeks used to paint their terra cotta ornament, and the Italians were generally satisfied with the admirable texture of the rough material. Of course glazed and highly colored terra cotta was used by the Della Robbias and other Italian sculptors for reliefs, which were frequently applied to the walls of buildings; but their work can hardly be classed as architectural terra cotta, and when the manufacturers of American

architectural terra cotta began to foresee a demand for a glazed and colored product, they were confronted by economic and technical problems of the utmost difficulty. The art of making this kind of terra cotta, which had been carried by the Italians to such a high degree of perfection, was a lost art; and it could not be recovered without long and costly experiments. Furthermore, there was no assurance that, after the art itself had been sufficiently recovered, it would be possible to produce the required kind of terra cotta on a commercial basis. It was practically necessary, because of both the time and the expense involved, that good colors should be obtained from one firing. The range of colors is further limited because lines must be selected which can be produced at one temperature. For a long time it seemed to be impossible to obtain the desired result, except after three firings, which would have made the price of the product prohibitive; but finally the three firings were reduced to one, and it became



MADISON SQUARE PRESBYTERIAN CHURCH.
Madison Avenue and 24th Street, New York City.
Terra Cotta by Perth Amboy Terra Cotta Co. McKim, Mead & White, Architects.

possible to manufacture glazed and colored terra cotta in such quantities and at such a price that it could be freely used in architectural design of all kinds. Of course, the difficulty of obtaining the desired result after only one firing was far from being the only technical difficulty which was encountered in making glazed and colored terra cotta architecturally available. All sorts of experiments had to be made, and many obstacles overcome before a suffi-



Detail by the New Jersey Terra Cotta Co.

cient variety of good colors could be supplied. Gases generated in the firing were the cause of many failures, and it was a long time before their action could be sufficiently neutralized to make them harmless to the finished product.

The technical methods and processes of manufacture are still susceptible of improvement, which will tend to make the results more certain, the range of the colors wider, the glazes more reliable. At present excellent shades of blue, green, yellow and grey are available, and efforts are being made to secure an acceptable red. Improvements are being made, however, with great rapidity. The gentlemen interested in the manufacture of terra cotta recognize fully that, when the technical process of making glazed and colored terra cotta will have been perfected, the final stage in the development of architectural terra cotta will have been reached, and a future of still wider scope opened up for this industrial art. All honor, consequently, to the gentlemen who have spent so much time and money in experimenting on the process and improving it.

Among some of the larger buildings in which terra cotta is being used, white and cream colored dull enameled material, closely approximating the general texture and surface of marble, is employed.

As recent examples of the use of this dull enameled white terra cotta may be mentioned the Plaza Hotel (59th Street and Fifth Avenue, now in course of construction; H. J. Hardenbergh, architect); the interior of the new Wanamaker Building (Broadway, Fourth Avenue and Eighth Street; D. H. Burnham & Co., architects); the interior of the Hotel Gotham (Fifth Avenue and 55th Street; Hiss & Weekes, architects), in New York; the Hartje Building (Chas. Bickel. architect), and the Nixon Theatre, in Pittsburg; Keith's Theatre (Bruce Price, architect), in Philadelphia; the Buckingham Building, in Waterbury, by McKim, Mead & White, and the Williamson Building, in Cleveland, by Geo. B. Post.

This dull glaze is not made as it used to be, by making a full glaze and sand-blasting it; the new material comes from the kiln with all the hardness and impervious surface, having the effect of a dull finish without the gloss, and without having afterwards to be treated to a sand blast. This process is thought by some to be an improvement over the older method, as the surface of the enamel is left entirely intact.

D. H. Burnham & Co. have successfully used full glazed terra cotta in the Railway, Exchange Building. Chicago (both on the exterior and on the interior); in the Oliver Building, in Pittsburg; also in the interior of the Union Station, at Washington, D. C.; while

Mr. C. L. W. Eidlitz has selected full glazed, sand blasted material for the Times Building, at 42d Street and Broadway, as have also Messrs. Clinton & Russell for an office building on Wall and Pine Streets. Colored glazed terra cotta is used in the Munsey Building at Washington, D. C.; on the stairway of the New Amsterdam Theatre, in 42d Street (Herts & Tallant, architects), and very extensively and in many colors in the West Street Building, now in course of construction, by Mr. Cass Gilbert, architect.



DETAIL FROM GERMAN BANK, BALTIMORE, MD.
Made by Conkling-Armstrong Terra Cotta Co. Baldwin & Pennington, Architects.

While the process of making glazed and colored terra cotta has not yet been entirely perfected, there can be no doubt that the manufacturers of the material are more successful about making it than the architects are about using it. American architects are, of course, very timid about adopting a material, for the successful employment of which there are no good precedents. They are, of course, fully accustomed to using terra cotta in the ordinary way, and most of them appreciate fully the color values of rough or white glazed terra cotta. But the use of livelier colors is a very different thing, for which, as we have said, there are no obvious precedents. To be sure, all kinds of wooden and stucco

buildings have been painted, and many of the best qualities of the architecture of Southern Italy and Spain depend upon the use of very positive color effects; but these precedents are not of very much value when an architect is proposing to use colored terra cotta. The American architect is not accustomed to thinking in terms of such a material. It opens up all sorts of new problems of design, in the solution of which his experience and his training afford him comparatively little help. It is not to be supposed that these problems will be satisfactorily solved at an early date or by one man. They must be the result of patient experiment, and of the general adoption by many different architects of the methods whereby success has been obtained in any particular instance.



"THE GUARDIAN" CLUB HOUSE AND SCHOOL, PEEKSKILL, N. Y.

Terra Cotta by South Amboy Terra Cotta Co. John E. Kirby, Architect.

Difficult, however, as the solution of these problems will be, there can be no doubt that they offer opportunities to the architect which make their successful solution desirable. They offer, in fact, the best of all chances really to popularize good architecture in this country. The ordinary man has no experience or standards which enable him to appreciate a building whose merit consists in effective proportions, in an impressive relation between its size and its site, in well-distributed masses and well-scaled details. Architecture whose chief merits consist in such qualities must always be an inaccessible and an uninteresting thing to the majority of people. But when color and texture come into play, the area of possible popular appreciation is enormously enlarged. A color quality of any kind is a much more positive and familiar quality than one based upon

proportion and scale. The ordinary man's taste in colors may not be any better than his taste in architectural forms; but unquestionably lively color, merely as a sensation, is much more instinctively interesting to him than are abstract forms, and the general use of livelier colors in certain classes of buildings will probably result both in attracting popular attention to good design and in a more effective popular education in architecture.

This color theory has been put to practice in many of the stations of the New York Subway, where colored, hard burned terra cotta has been introduced in border ornaments, string courses, medallions, and other forms in a very pleasing manner by Messrs. Heins & La Farge, the architects. The result is so successful that it seems a pity that the material wasn't more extensively used;



ANSONIA HOTEL, BROADWAY & 72D STREET, NEW YORK CITY.

Terra Cotta by New York Architectural Terra Cotta Co. W. E. D. Stokes, Graves & Duboy, } Architects.

it competes successfully with the more expensive faience in all compositions except those in which many colors are required in the same design.

There can be no doubt that the architects themselves will welcome the opportunities which the use of glazed and colored terra cotta will afford them. For years they have been paying an ever-increasing attention to color values in designing the peculiarly modern American types of building, and have been stimulated into doing so by increased varieties and shades of stone, brick and terra cotta which have been offered them. Of course the colors which have been obtained in stone, brick, and ordinary terra cotta have a very different architectural value from those which are bestowed upon glazed terra cotta; but the greater attention which has been paid to the use of color in buildings since the age of brown stone and red brick has already achieved considerable results, to which some reference has already been made in the preceding articles of this series. The extent to which architectural effects in color can be obtained by the use of terra cotta, which has not been glazed, may be inferred from a recent building on 44th Street in New York City, designed by Hill & Stout. The whole building is an elaborate and careful composition in color, the difference being that the colors are soft and subdued, being thereby suited to the texture of the material. Another very successful instance of the use of unglazed colored terra cotta is the Broadway Chambers Building, in New York City. In this case the terra cotta ornament on the upper stories of a skyscraper is colored most effectively both in relation to the brick below and in relation to the way in which it is seen from the street. The coloring is not vivid; but it is positive, and it adds considerably to the attractiveness of the building.

Conditions obtaining in some Western cities, notably Chicago and Pittsburg, hastened the development of the enameled terra cotta industry. On account of the smoke and dirt in the air, all porous materials soon become black and unattractive, so that architects were only too glad to hail the advent of a good building material which would resist the action of the smoke in these cities.

How far terra cotta that is both glazed and colored can be successfully applied to skyscrapers is still a doubtful matter, because no entirely satisfactory experiments have yet been made. Certain instances in which it has been tried are not worthy of unqualified commendation. The upper stories of the Beaver Building, on Beaver Street, in New York City, are decorated with panels of glazed terra cotta in bright colors; and while the brightness of the color is in itself a praiseworthy characteristic rather than the reverse, they do not, in the present instance, harmonize with each other, nor do they constitute a pleasing scheme of decoration for the top stories of a tall building. Everything about such a building should be subordinated to the dominant effect produced by the mass, and the attempt to make any one division interesting by means of a specially vivid color scheme is as undesirable as the attempt to make any one division interesting by means of inflated ornament. The most successful examples of skyscraper architecture remain buildings finished in one solid color, which tends to emphasize the mass of the building instead of diverting attention from it; and, as we have already pointed out, white or light grev glazed terra cotta is the best material in which to treat the surface of such a building. But there can be no doubt also that there would be many different ways of using glazed and colored terra cotta for the surface of such a building which would not serve to diminish the effect of its mass. It might be arranged, for instance, in a not very conspicuous pattern, which delicately emphasizes the effect of the salient vertical lines, or the cue might be taken from the Broadway Chambers Building, and a color scheme provided which would be carefully graded so that a consistent effect would be obtained from a number of carefully blended colors, and so that the colors applied to that part of the structure furthest from the eye would be most vivid.

Skyscrapers are not, however, the only

buildings to which colored and glazed terra cotta can be applied, and the problem of design presented by lower buildings is, of course, entirely different. In houses of an ordinary size the height and mass does not overpower every other character of the building, and well-scaled detail again becomes an essential source of complete architectural effect. Fortunately, a building of this kind, decorated with glazed and colored terra cotta, has just been designed in New York City by McKim, Mead & White, and the use which they have made of the material in this typical instance shows admirably how its possibilities strike a firm of architects who stand at the head of the profession in this country. McKim, Mead & White have, in the course of their long career, contributed enormously to the novel, popular and successful use of terra cotta, but on no occasion have they done it a better service than by adopting colored terra cotta glazed as the material to be used in decorating the new Parkhurst Church on the northeast corner of 24th Street and Madison Square. The building has already attracted a large amount of popular attention, and the central character of its site, combined with the novelty of its design, and the peculiarity of its architectural relation to the buildings of the Metropolitan Insurance Company in its immediate neighborhood, will continue to make it one of the most conspicuous edifices in New York City. The method in which the colored glaze has been used is, consequently, of peculiar interest, and in general it may be said that the object behind its use has evidently been that of giving an additional value to an elaborate scheme of architectural ornament. Of course the coloring of this ornament has been planned in relation to general color effect of the whole building, the basis of which is supplied by the cream brick of which the walls are made. Every part of the building on which decoration was appropriate has been embellished with very delicate and beautiful patterned ornament, and the yellow and green terra cotta has been used to make this shallow ornament additionally interesting. The scale of the detail is, indeed, such that it would not be effective at all, were it not for the tinting which it receives, and the chief question mark which one is inclined to place against the use of colored glazed terra cotta in the design of the building concerns the depth of this tinting. It is frequently asserted that the use of somewhat livelier colors would have been more effective. However that may be, the new Parkhurst Church is an admirable example of one way in which the colored glaze may be applied to buildings whose height does not make their upper stories too remote from the eye; and it will undoubtedly have an influential effect upon the way in which this colored terra cotta will be used by American architects in the near future.

It seems to the writer that the colored glaze ought to become very popular for ornamental use on fireproof country residences. Several prominent houses in Newport and Washington have already been encased in the white glaze; but no colored material was employed, either for ornamental treatment or for the covering of any large surface. On what class of building, however, would the colored glaze be more appropriate than upon private residences, particularly in the country? One's country house, especially when it is a villa rather than a mansion or a palace, should be lively and gay in its effect. The Italians frequently made their stucco villas gay by painting the surface, but by means of the colored glaze much better effects can be obtained in a manner which would be structurally much more sound. It is much to be hoped that the better American architects will soon be using the glazed terra cotta, both white and colored, for country houses.

Herbert D. Croly.



THE NEW YORK CLUB'S PROJECTED BUILDING.
(From the Architect's drawing.)
West 40th Street, near 5th Avenue, New York City. H. J. Hardenbergh, Architect.

The Routine Paint Specification

Why is it that architects, who are in the van of progress in the engineering and constructing branches of their profession, are still in the dark ages when it comes to paint? We find architects who are thoroughly up-to-date in the details of steel, concrete, slow combustion, etc., reproducing literally the paint specifications of their predecessors of the seventies. One reason, of course, is that paint is less important than material and form, and that the more important matters demand first attention; but this does not fully explain the practical identity of painting specifications.

An architect to whom I put this question recently shed a bright light on the subject when he said, "They are all the same because they are obtained in the same way. When the young architect leaves his preceptor's office to set up for himself, the one thing he is sure to copy and carry away with him is a set of specifications, including specifications for painting, and some of these specifications may have been handed down in a direct line, for all I know, from the office of Hiram of Tyre."

If anyone will take the trouble to examine the successive specification issued during the past thirty years of any important railway, government department, wagon works, implement works, etc., he will find that practice has kept pace with technical progress, and that specification has gone hand in hand with investigation. But in architectural practice any deviation from the venerable formula beginning "all exterior wood work shall have a priming coat of pure lead and oil," etc., is so exceptional as to be startling.

Supposing, or even asserting, that this practice was the best possible at the time it was instituted, certain changes in materials and conditions have intervened which make it advisable at least to review the subject. The principal structural woods are no longer, as formerly, white pine, oak and hemlock. Yellow pine, cypress, yellow poplar, cottonwood, basswood, white cedar and redwood, owing to the exhaustion of the more desirable timbers, have largely replaced them. It is evident to anyone who gives the subject a thought that white pine and yellow pine will probably require different treatment, as will oak and redwood, or hemlock or cypress. But the average architect copies the old specifications, and relies on the painter to adapt them to the new conditions.

That is not the way the Pennsylvania Railroad, for example, specifies paint. The formula varies with every purpose for which the paint is to be used. Steel coal cars, wooden freight cars, steel bridges, locomotives, water tanks, signal towers and station buildings all require different treatment, and the paint varies accordingly.

The use of house paint along the line of the Pennsylvania is confined to such things as stations, sheds, signal towers, fences, etc., and the variety is limited practically to two shades of drab. It is a significant fact that no specification has yet been issued for such paint, but that the paints used are largely prepared paints, bought, as the Chief Chemist of the road, Dr. C. B. Dudley, has stated, on the general reputation of the manufacturer. Moreover, has Dr. Dudley stated that when the specifications for paints of this class are finally issued they will be—pure lead and oil tinted to shade? By no means, but a formula on the lines of the better grades of ready prepared paints now on the market, with about one-third of the pigment an inert material like gypsum, barytes, silica, alumina, etc., will be used.

The fact is, that outside of the technical chemists and testing engineers, the only class that have intelligently followed the changes in structural materials, the altered conditions of exposure due to the contamination of the air by the increased consumption of coal and gas and the enormous increase and

change in the technics of painting materials, are the paint manufacturers. The physical character of white lead has been diversified during the past fifty years, so that its inventors would not recognize it. There are at least five different kinds of lead on the market, differing as widely as if they were different chemical compounds, yet to the average painter they are all just "pure lead and oil." If through ignorance of their characteristics he fails to get good results from them, he can merely prove their purity and deplore the passing of "the good old lead we used to get." And thus, through the conservatism of the architect and the painter, the modern householder misses all the advantages of the progress in paint-making during the past half century.

Though not the most important part of the architect's duties, the paint end of it is worth more than the casual thought usually given it. Paint can protect or fail to protect materials. It can remain permanently beautiful and protective or it can quickly fail of either or both qualities. How shall the architect secure in paint, as in building materials, the improvements of the past fifty years?

Without attempting directly to answer the question, let us revert once more to the practice of the Pennsylvania Railroad, a consumer whose annual consumption of paint exceeds that of several states. When the technical authorities of the Pennsylvania Railroad, by means of test and experiment, have formulated a specification for any article of consumption, they submit it for criticism to all the manufacturers in that particular line from whom they are accustomed to make purchases, and after collating with their own observations the practical advice of these manufacturers, the formula is perfected and issued. Is there not in this practice a hint available to the architect? Would it not be to the advantage of all concerned if he was to get in touch with the paint manufacturers of his vicinity and see what, if anything, new and available has been developed by paint manufacturing experience since the dark ages when the current specifications originated?

H. B. George.



VOL. XIX. No. 5. MAY, 1906. WHOLE No. 92.

THE ARCHITECTURAL RECORD

CONTENTS

PAGE

SARAGOSSA—Illustrated 327
KATHARINE C. BUDD

THE GRISWOLD—A Study in Summer Hotel Building—Illus 345

THE ROYAL INSURANCE BUILDING—Illustrated 362

OPENING THE CENTER OF DENVER—Illustrated 365
C. M. R.

FACTORIES AND WAREHOUSES—Illustrated 369
RUSSELL STURGIS

A CONVERSATION WITH HENRY JANEWAY HARDENBERGH.... 377
SADAKICHI HARTMANN

THE PYNCHON HOUSE—Illustrated 381
H. W. FROHNE

THE MORGAN LIBRARY AND ART MUSEUM—Illustrations 389

NOTES AND COMMENTS—Illustrated 395

The California Bungalow—A Concrete Building—The Potter Collection of Bronzes—Los Angeles Electroliers—The Newest Thing in Skyscrapers—Exhibition by the Washington Architectural Club.

TECHNICAL DEPARTMENT—

Paint Progress 401

C. W. SWEET, Publisher R. W. REINHOLD, Business Mgr.
H. W. DESMOND, Editor H. D. CROLY, Associate Editor

Subscription (Yearly), $3.00 **Published Monthly**

TWENTY-FIVE CENTS

THE ARCHITECTURAL RECORD CO.
NEW YORK

TWENTY-FIVE CENTS

OFFICE OF PUBLICATION: Nos. 14 and 16 VESEY STREET, NEW YORK CITY.
WESTERN OFFICE: 511 MONADNOCK BLDG., CHICAGO, ILL.

The
Architectural Record

Vol. XIX. MAY, 1906. No. 5.

Saragossa

When for the first time, Saragossa is seen, from the Torrero (the fortified hill behind the city), with the setting sun glowing on her many towers and domes, on the wide Ebro, swiftly flowing under the old bridge, on the great plain of Aragon stretching far away to the snow-clad peaks of the Pyrenées, one is ready to believe that under this picturesque skyline will be found a mine of artistic interest. A painter could spend years here, enjoying the rich coloring of the massive old buildings and of the bustling crowds, but an architect soon turns away, disenchanted by a certain coarseness of detail that is revealed on closer inspection. Other Spanish cities, Toledo, Cordova, etc., outwardly lacking in interest, yet possess buildings whose interiors are architecturally rich beyond description. But Saragossa, too, has some characteristic features that well repay study. She boasts proudly of her two great cathedrals, a distinction she shares with Cadiz. (Strange to say, Madrid, the capital, has not even one!) These, however, although decidedly picturesque, do not in design equal some of her smaller buildings.

Saragossa is noticeable among Spanish cities, as Genoa is among Italian ones, for the number of her stately old houses. These buildings, after centuries of neglect, still have power to charm. The detail is generally poor, but the composition of the façades, the general arrangement of voids and solids, is excellent, the very paucity of architectural finish in the lower stories emphasizing the boldness of the arcades and of the overhanging cornices that finish the massive stone walls. This is where one is reminded of the Genoese palaces, which are equally frank and direct in design; with openings where they are needed, proportioned with due regard for each other and to the uses for which they are intended; with a fine cornice in the right place, not below an attic but crowning the wall. We take pleasure in their grouping on the narrow, irregular streets, overlooking unpleasant details in our enjoyment of the harmonious proportions of the whole succession of buildings. In Genoa the walls are concealed by stucco, which is painted or frescoed in gay colors. The rough brickwork found in Saragossa adds interest and dignity to the design. The city was built of brick, as stone was difficult to procure in the neighborhood, the most noteworthy brickwork being laid by Moorish masons.

The picturesque mass of domes, towers and tiled roofs covering the city lies along one side of the Ebro, backed by green hills, dotted with many torres (country houses). The basin of the Ebro is here a fruitful huerta, contrasting sharply with the dry waste extending outside for many miles. In the sixteenth century, when Spain was still glorious, Charles V. commenced a great ship canal, seventy-five feet wide, hoping to connect the Mediterranean with the Atlantic. Sixty miles only were finished, and this, since the days of railroads, has been used only for irrigation. The Canal Imperial, flowing one hundred and twenty feet higher than Saragossa, supplies her gardens and olive groves

Copyright, 1906, by "The Architectural Record Company." All rights reserved.
Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879.



PALACE OF THE LUNA FAMILY—SARAGOSSA.

freely with water, and forms the center of a beautiful promenade before, in a series of waterfalls, it reaches the level of the river.

Spain in general is not the sunny, fruitful land we picture. Narrow-minded Spanish farmers, imagining that birds injurious to their crops found shelter in foliage, have destroyed all trees; many peasants have never seen a tree. The climate has, from this cause, gradually changed, the natural moisture drying up; much of the country is now a desert, burning hot in summer, icy in winter.

The four railroads converging in Saragossa are probably responsible for the present prosperity of the city. Thirty-five years ago a traveler wrote, "Saragossa struck me as being poorer and prouder than any city I visited in Spain." In 1905 she is alive commercially, rivaling Barcelona in the number of improvements that are being made.

Noticing the commonplaceness of these modern "improvements," the inquisitive tourist wonders "where the Spanish grandees live." In every small town of France and Italy, one finds palatial châteaux and villas, occupied by the aristocracy; but among the modern buildings in Spain there are no residences worthy of note. The country outside of the cities seems to be absolutely destitute of fine secular buildings; at long intervals one comes on a low: rambling farmhouse, or a few humble cottages grouped around a chapel. Neglect of stately old houses is everywhere apparent; the best in Saragossa have already disappeared, and others are fast crumbling away, showing walls bulging into the street, richly decorated courtyards blocked with stable refuse, carvings almost obliterated by repeated coats of whitewash, floors overloaded with stores of grain, and vaulted vestibules filled by tradespeople or shopkeepers. Even in the coldest weather, blacksmiths and woodworkers are to be seen in these great archways working without other artificial heat than a handful of hot charcoal on a "brassiero," or a few shavings burning on a sheet of iron. The shops, no matter what else



TORRE NUEVA (NEW TOWER)—SARAGOSSA.

they contain, invariably show gorgeous piles of fruit, nuts, and long strings of white onions and red peppers.

Digby-Wyatt shows, in a sketch dated 1870, a lovely renaissance courtyard, disfigured with the litter of a livery stable, remarking: "It is as well that as many as possible of our rising generation of art students should see the Casa Zaporta, for it is not likely that any of it will be left to their children." This prophecy came true last year, when the entire building was transported to Paris, to be re-erected there as a studio. Still another loss is that of the wonderful leaning tower, the Torre Nueva, recently destroyed.

Spanish people blame the French for wanton destruction in 1808, when the vast palace of the archbishop was gutted and sacked, the Aljaferia ruined, and the splendid plateresque church and curious half-Moorish cloisters of Santa Engracia razed. The richly decorated portal alone was saved. From this fragment, with its border of thirty-three angels' heads, we can judge of the rather overloaded magnificence of the rest. Commenced by the Catholic monarchs, Ferdinand and Isabella, it bears the best existing likenesses of these rulers, kneeling effigies of life size.



TOWER OF THE FORTEA HOUSE IN SARAGOSSA, WITH CHARACTERISTIC ARCADES AND ROUGH BUT EFFECTIVE BRICKWORK.

Strange to say, the wooden cornices of the old houses, though protected only by the great tiles of the roof above from the storms and sunshine of four or five hundred years, have apparently suffered less than the rest of the buildings.

Saragossa from earliest times has been a free city, possessing her own charters and mint. The original Roman city, used for ages as a quarry by both Moors and Christians, still crops out in the walls of the Convento del Sepulcro, and a few Iberian vessels are to be seen at the museum, although the Spaniard who in digging finds such remains generally tosses them back into the excavation as "useless old stones."

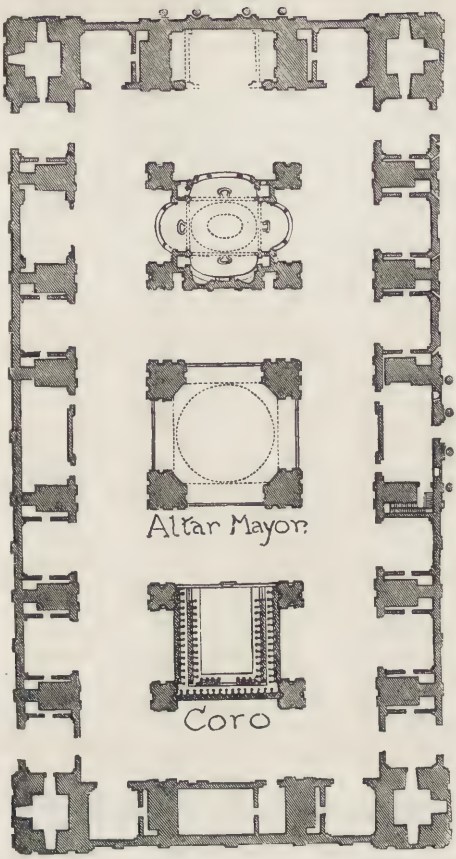
The Emperor Augustus called the city "Colonia Caesar-Augusta," since corrupted by the Spaniards into the musical "Zaragoza" (the z is lisped in Castilian). The first Christian poet was born in this city, which is still one of the most devoutly religious in the world.

Some traces are left of Moorish rule, noticeably the general plan of the city, with its lane-like streets, and the fine brick and tile work still to be seen in the few remaining walls and towers.

Zaragoza's day of splendor was over when Ferdinand, marrying Isabella, was obliged to move his capital from Aragon to the more convenient Castile.

The most romantic period of her history occurred in 1808, when defended only by a few brave peasants, she successfully withstood for many months the attack of an overwhelming French army. One can understand, after seeing these fortress-like old houses, how the siege was finally reduced to a bloody house-to-house warfare; as Tio Jorje proudly expressed it in his refusal to surrender: "guerra al cuchillo" (war to the knife). The French were merciless, burning alive the sick in the hospitals and ruthlessly destroying priceless treasures of art. Every Spaniard since concedes Saragossa's right to bear the inspiring title "Siempre Heroica."

The Puente de Piedra, built before America was discovered (it is strange



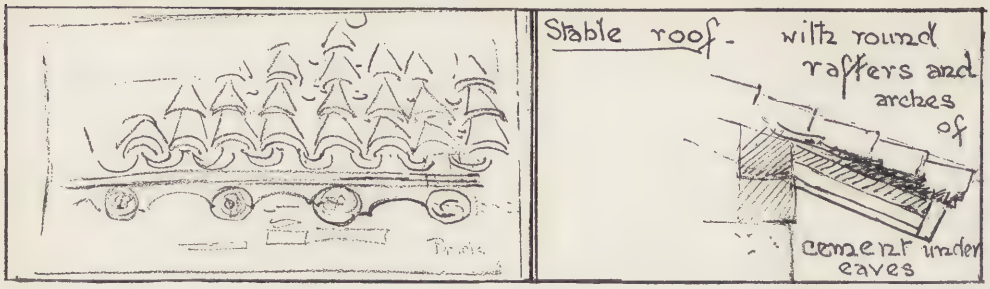
PLAN OF THE CATHEDRAL DEL PILAR AT SARAGOSSA. FROM PONZ. SCALE 100 FEET TO 1 INCH.

how many important dates in Spain occur at this glorious period of her history!), crosses with seven arches the main channel of the Ebro, the center arch having a span of one hundred and twenty-seven feet. From this fine old bridge one has an excellent view of the city, with La Seo to the right, the Lonja in front, and, to the left, the cathedral of El Pilar (dedicated to the Virgin, who is supposed to have here appeared on a pillar when St. James was on his missionary journey through Spain). This clumsy mass, covering one hundred thousand square feet, and nearly five hundred feet long, the largest modern building in Spain, was designed by Herrera in 1681. The countless small domes covered with gay blue, green and white azulejos (glazed tiles), are picturesquely reflected in the river, but the lack of a great central dome makes the exterior resemble a structure built of toy blocks. Although the plan is good, the detail is bad throughout; the interior looks like white and gold stage scenery, and in spite of its great size it is unworthy of serious notice.

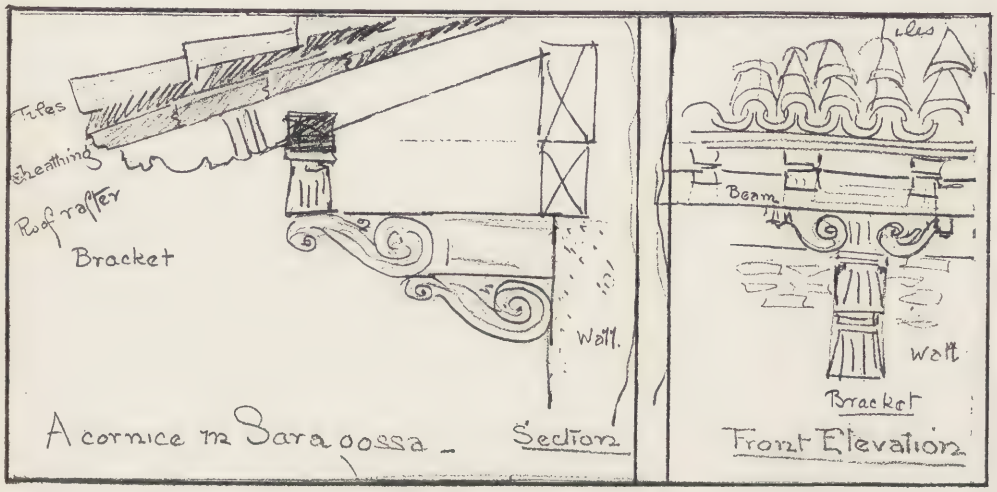
El Pilar is the annual resort of many devout pilgrims; on the twelfth of October over fifty thousand often worship at the shrine of the Virgin. Rich gifts of silverware, jewelry, etc., are constantly being made to this church; from these the dean and chapter sometimes make selections, which are sold. In 1870 $100,000 was made in this way, and applied to the finishing of the Cathedral. When such a sale is advertised, collectors everywhere are on the alert in order to secure priceless heirlooms. A remarkable specimen of Spanish goldsmiths' work, rock crystal with gold medallions, the gift of Henri IV., was in this way acquired by South



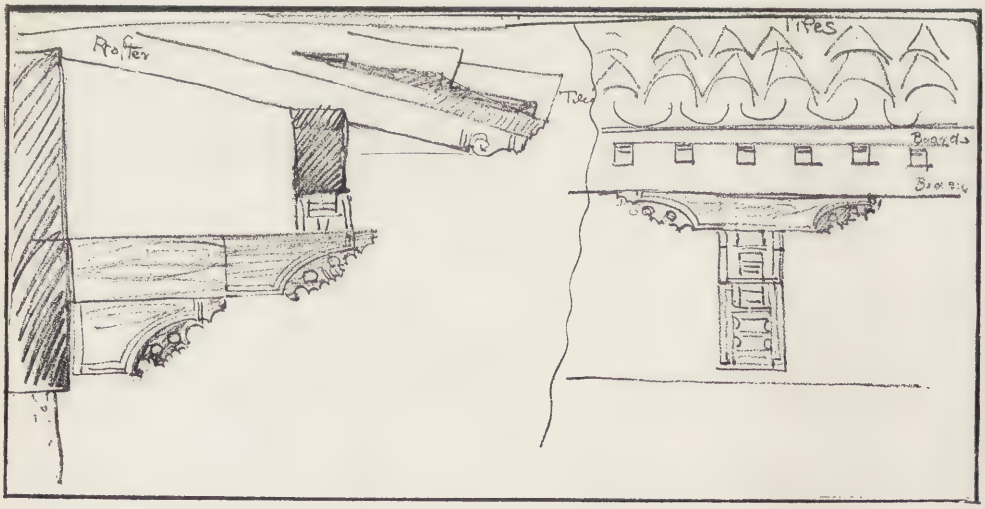
CHURCH OF ST. MICHAEL, SARAGOSSA.



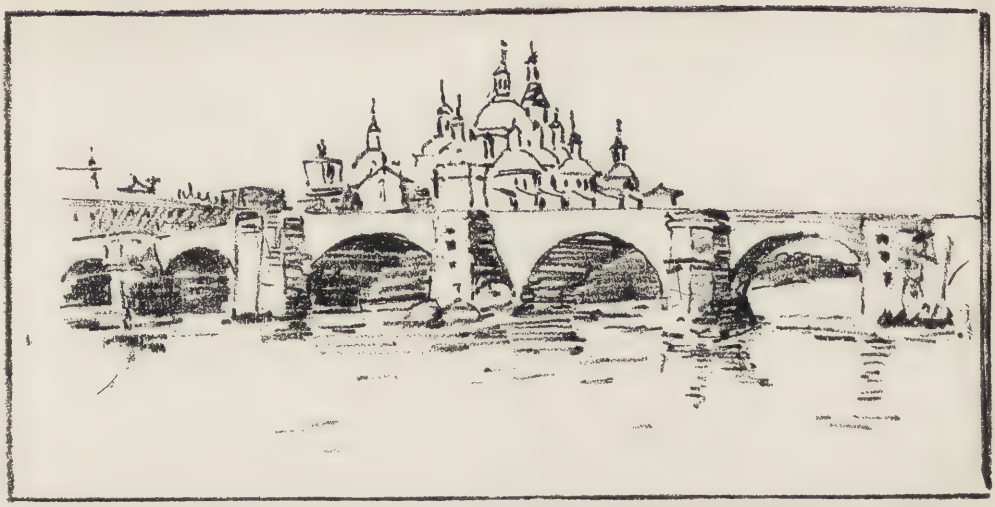
A CHEAP CORNICE FROM A STABLE IN SARAGOSSA.



A CORNICE PROJECTING FOUR FEET FROM THE WALL—SARAGOSSA.



AN UNUSUALLY FAR-PROJECTING AND RICH CORNICE—SARAGOSSA.

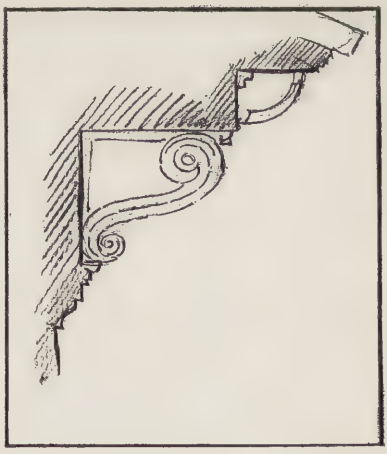


THE NEW CATHEDRAL, EL PILAR, AND THE OLD STONE BRIDGE FROM THE EBRO, SARAGOSSA.

Kensington for four hundred pounds. The great veneration of the citizens for El Pilar is evidenced by the numberless shops and booths entirely devoted to the sale of relics and souvenirs. Even the careless traveler feels a pang of self-reproach if he leaves Zaragoza without a rosary or at least a sealed certificate to prove that he has made the pilgrimage to the shrine of the old black "Pilar." The stone pillar (supposedly the one on which the Virgin descended) is worn concave by the fervent kisses of the multitude.

The splendid Gothic retablo (high altar), taken from an earlier church on the site of El Pilar, is the finest piece of carved alabaster in Aragon, emphasizing by force of contrast the tawdry tastelessness of its surroundings.

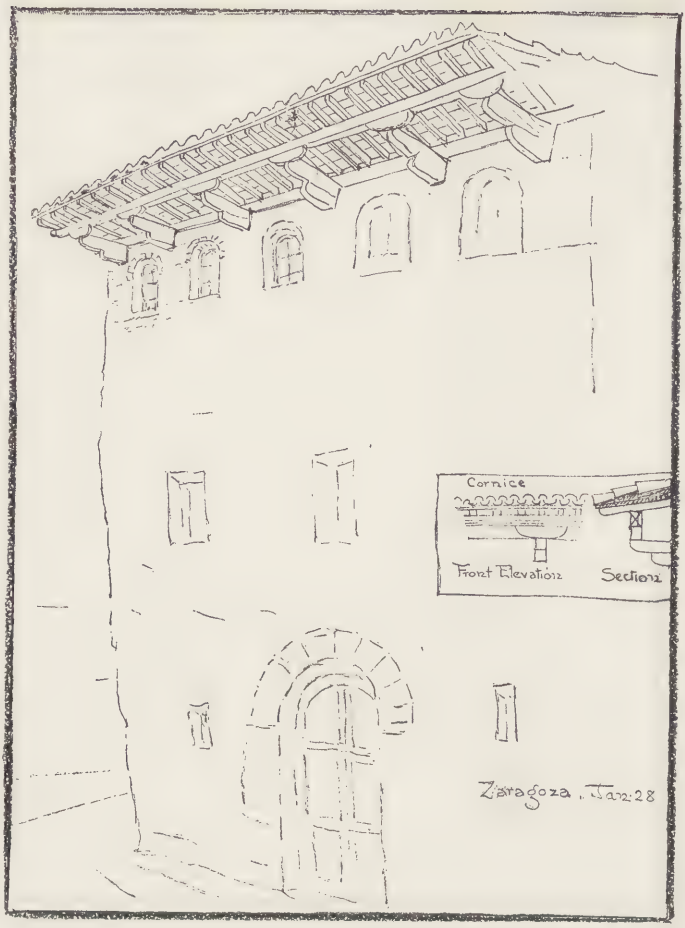
After the brilliant sunlight of the plaza, the old cathedral, La Seo, seems impressively dark. Incense floating up in wreaths around the tall Gothic piers makes the vaulting seem unusually near heaven. A little light slants down in straight white lines through the misty blue atmosphere from the few small, round (very grimy) windows high up on the north side. Here, one must forget that nothing is correct from an architectural point of view, that the plan is bad, the detail crude, the whole a hopeless mixture of vulgar styles, and then enjoy the whole church from a painter's standpoint. To him the soft rich browns and greys of the stone work, the curiously effective cherubs encircling the capitals of the high piers, the great, gaudily gilded, Moorish bosses and pendants on the vaulting above, the many picturesque old altars, for a fit setting for the devoutly kneeling figures below, the elderly men wrapped to the ears in their heavy black cloaks (a Spanish touch of color gleaming out in the red or green plush of the linings), the ladies in soft black, modestly veiled by their lace mantillas, the women and children in vivid though well worn colors, with gay ker-



TYPE OF WOODEN CORNICE VERY COMMON IN SARAGOSSA.

chiefs decorously concealing their hair, all telling their beads attentively, one woman in an ecstasy of devotion before her favorite saint even beating her forehead on the dirty stone floor!

The cathedral can also be entered from a narrow street, through a spacious vestibule, vaulted with good Gothic vaulting with large brass rosettes, which tradition tells us, was built by Al-Rami, the Moor, in 1498. This is called "La Pavordería" (from the name of the official who used to distribute rations here). The corbels and walls are adorned by delightful sculptures, little angels, lambs carrying banners, etc., of which it is impossible to get a good view, as projecting wooden doors partly conceal the inner entrance. The floor of La Seo, like that of other old churches, is much below the present street level. The marble pavement repeats the pattern of the vaulting above in brown and red stripes. In winter, this is nearly covered by thick straw mats, as people cannot kneel long on the cold, damp stones. In Spanish churches the congregation seldom uses chairs or kneeling benches; of course, our comfortable pews are unheard of innovations.



CURIOUS CORNICE ON AN OLD HOUSE IN SARAGOSSA. THE PLATE ON WHICH THE ENDS OF THE SLENDER RAFTERS REST IS CARRIED BY PROJECTING BEAMS THREE FEET OUT FROM THE WALL.

La Seo (see, seat of the archbishop), commenced in 1119, on the square plan of the principal mosque of Saragossa, embodies some of its Moorish walls; that on the northeast side is a dignified, interesting piece of brickwork, sixty-five feet long, built mainly of bricks thirteen inches by seven, two inches thick, laid up, "long and short," with mortar joints half an inch thick. Large ornamental patterns made by the projecting heads, decorate the surface, the center of the spaces being filled with azulejos (glazed tiles) of red, buff, white, deep blue and light green. The tiles are of various shapes, and are glazed all over. The bricks project about an inch and a half. Window openings have at various times been cut through the flamboyant patterns, and many of the tile have dropped out, without, however, greatly injuring the general effect, which is harmonious and dignified. Probably some of the picturesqueness is due to the roughness of the brick-laying.

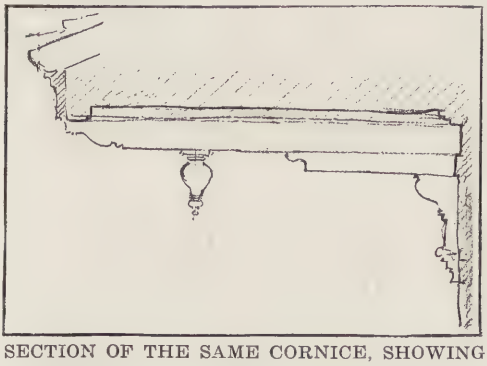
An odd story is told of the restoration

of the old Cimborio. In 1500, the Archbishop, finding that it had been weakened, called a Junta of architects, who advised its instant removal. In 1505, he appealed to the King, stating that the Junta having advised certain repairs, he was anxious to secure the services of Egas, a man of ability and experience, who had excused himself on the plea of other work, which included a bridge for the King, "whereupon the Archbishop begged the King for the love of God our Lord to command Egas to undertake the work at Zaragoza." Such reluctance to undertake more work is seldom seen among modern architects!

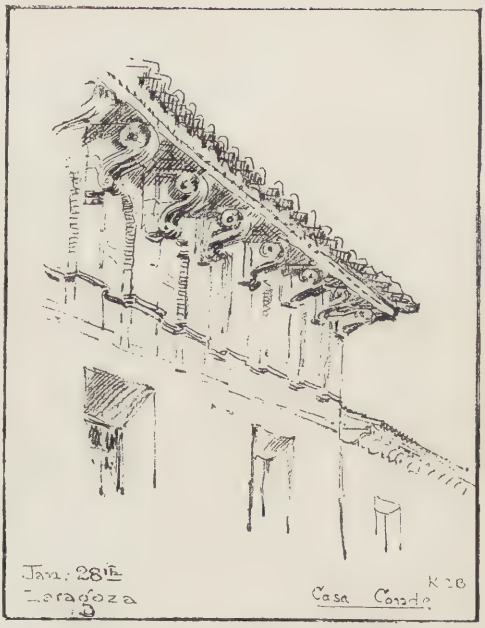
A black marble slab marks the spot where lies the heart of Don Balthasar, the little prince Velasquez so loved to paint, who, at seventeen, died here of



DETAIL OF CORNICE, SARAGOSSA. FROM A HOUSE NOW USED AS A STABLE AND TENEMENT.



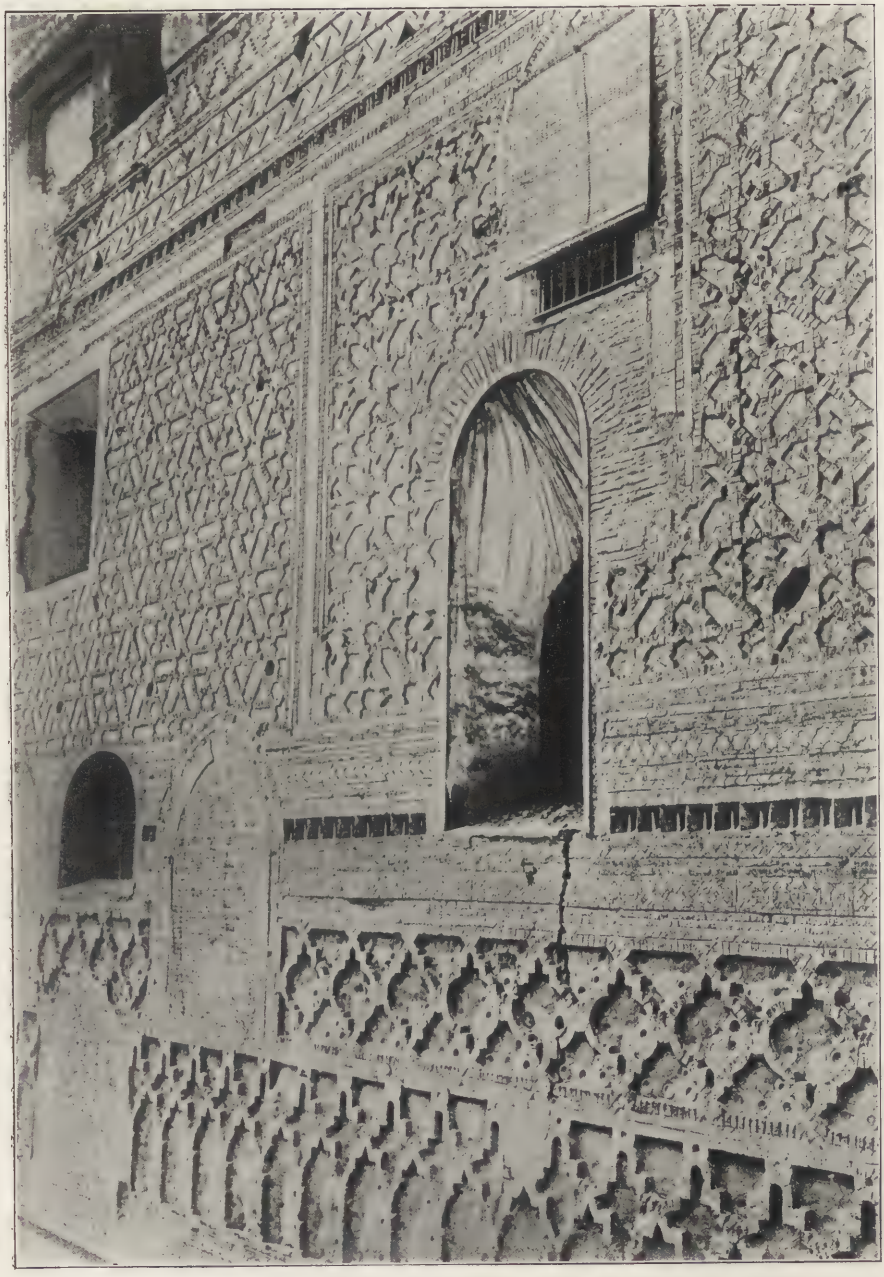
SECTION OF THE SAME CORNICE, SHOWING DELICACY OF DETAIL IN THE WOOD-WORK.



OLD CORNICE AND ARCADE OF THE CASA CONDE, SARAGOSSA.



CORNICE OF UNUSUALLY LARGE BRICKS, WITH COURSES CORBELLED DIAGONALLY, FORMING A ZIG-ZAG PATTERN, SARAGOSSA.



DETAIL SHOWING PATTERNS IN BRICKWORK, LA SEO, SARAGOSSA.

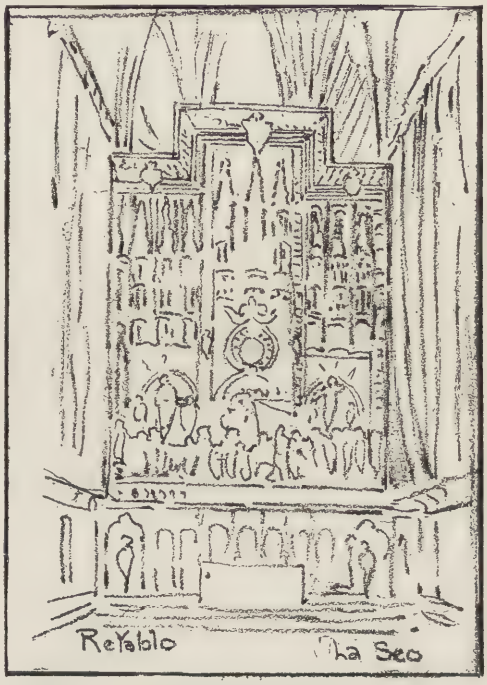
smallpox. His body rests in the royal children's tomb at the Escoriál with six of his little brothers and sisters, including the little blond Infanta Marguerita, who figures with her maids of honor in Velasquez' wonderful picture, "Las Meniñas."

The retablo (high altar) is a splendidly decorated one, made in 1350 by Dalman de Mur.

The interior arrangements of Spanish cathedrals differ greatly from those of other Catholic countries, the magnificent ceremonials being conducted in a space resembling a smaller church enclosed in the center of the vast floor. The splendidly decorated high altar, shut off on all sides but the west by high sculptured screens, is divided by about forty feet of open space from a similarly enclosed coro (choir), where the majority of the clergy sit on richly carved silleria, chanting from a great music book raised on a revolving stand in the center. As these old books are about five feet high, with notes and letters at least six inches long, the entire choir can read with ease. The gorgeous initials in these books were patiently designed by monks, whose whole artistic feeling found vent in this one outlet. They are still splendid in coloring, uninjured by four hundred years of daily use.



AZULEJOS (COLORED TILES) FROM THE CONVENT DEL SANTO, SARAGOSSA.



CARVED AND PAINTED HIGH ALTAR, LA SEO, SARAGOSSA.

The sacristy contains three large painted busts, portraits of saints, made at Avignon in 1394, and still used on the "altar mayor en las grandes festividades." One can imagine their appearing in honor of the coronation of the Kings of Aragon and the baptism of Ferdinand, as they still do at mass on all great festivals.

It is difficult in these peaceful days to realize the intense excitement that followed the death of Pedro Arbues, the ferocious grand inquisitor, who was assassinated here under the crossing. Ferdinand rewarded his murderers by burning them alive, incidentally, after the generous fashion of the Inquisition, tossing a few inoffensive Jews into the funeral pile. The cruel Arbues has since been canonized.

In front of La Seo is a little square, elaborately laid out with palms and plants, that are green, even in midwinter. The fountain in the center has a bronze "Justice," covered with a most exquisite blue-green patine. With characteristic lack of common sense, this fountain, which must supply all the



OLD HOUSE IN SARAGOSSA, NOW OCCUPIED AS A STABLE AND TENEMENT.
(Photo by K. C. Budd.)

neighboring houses, is set in the middle of a wide basin. Each girl who comes to fill her great water jar must bring a tin tube six feet long to conduct the water from Justice's dripping urn into her jar. The gossiping women form charming groups, as they wait for their turn near the slowly trickling stream. Spanish women know how to dress far better than do their sisters in Italy and France; and their beautiful hair, elaborately arranged by the barber, is generally adorned with a flower or showy ornament. Saragossan women, unlike other Spaniards, are always busy, even on the streets, sewing, knitting, or crochetting, while they talk.

San Pablo (built in the thirteenth century) possesses a brick octagonal tower which Fergusson characterizes as "remarkable, unique"; an interesting interior with fine carved silleria, and a splendid retablo of carved and painted wood. The picturesque north door has late Gothic sculptures, etc., under the wide wooden cornice.

The old church of Santiago is named for St. James, who lodged on this spot during his missionary journey. The twelfth-century capitals of the columns have been taken to the Museum at Madrid; its one treasure is the Campaña Goda (bell cast by the Goths).

At first it is difficult to understand why the old houses here are attractive; for the prevailing style is rather insipid, the rectangular windows being without enrichment, architectural projections seldom covering the great entrance doors, and all decoration being confined to the arcade and projecting cornice of the upper story, where the arches often have two or three reveals, stepped back, with imposts and string courses of several projecting courses of brick, following the breaks of wall surface. All is of a character easily executed in brick of various shapes, which is laid up with a vigorous roughness that gives character to the whole. In more modern cities this would be considered a defect, and carefully concealed under a smooth coating of cement. The general height of buildings being the same and the style uniform, the effect of the whole is singularly harmonious. The ponderous iron work, the great window grilles, the balconies with their supports, the bars, even the heavy bosses and nails studding the doors, add to the peculiar fortresslike effect.

The old part of the town, originally laid out by the Moors with narrow, winding streets, must have been rebuilt about the end of the fifteenth century. The frowning cornices nearly meet



HOUSE AT THE END OF ONE OF SARAGOSSA'S CHARACTERISTICALLY NARROW STREETS.
(Photo by K. C. Budd.)

overhead, shutting out the sky; a few barred windows light the lower floors. The great entrance is sometimes wider than the wretched little donkey track on which it opens; between the enormous doors one enters a spacious vaulted vestibule paved with small, flat, water-worn stones, black and white, set on edge in large waving patterns. Another set of heavy doors, opposite the first, opens on the beautiful patio (court), which is large or small, according to the means of the owner. The airy gallery and bedrooms above are supported on very heavy Doric columns, with fantastic scrolls and corbels widening the capitals. A Spanish patio is the main living room of the family, except in the coldest weather. Sometimes one finds two staircases running up from the patio; an immensely wide one, with absurdly easy treads (two inches high and eighteen wide), and an elaborately carved railing, and the service stairway opposite. The wide nosing is generally of oak, the rest, risers and treads, of red tiles, which must be cool in summer, (they certainly are in January!).



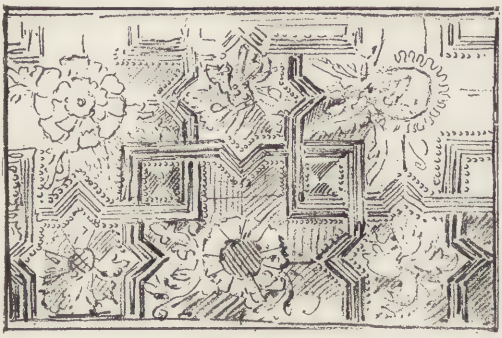
TOWER OF THE CHURCH OF SAN PABLO, SARAGOSSA.

The ground floor on the "calle" (street, pronounced cahlye), occupied by the servants and sometimes also by the horses, has a few small window openings; the next stories, larger windows, all heavily barred; the top story, an airy gallery sheltered by the wide roof, a pleasant place in hot weather.

The arcades of the top stories of the houses differ greatly in detail; so do the cornices, which are here treated "more architecturally than anywhere else in Spain." Moulded corbels of wood placed under a plate several feet out from the wall, support a roof wide enough to cast a fine shadow. Cornices are generally of wood, although occasionally one is found built of large flat bricks carefully corbelled out, set alternately in straight and diagonal lines. Some of the wooden cornices are Mudejar, others pure Gothic, often elaborately constructed and richly carved. As the palaces of Saragossa had no gardens, the arcades formed the only place where carefully secluded señoritas could live with freedom in the open air.

Having been struck, on entering Saragossa, by the general resemblance these houses bear to some of the Tuscan palaces, I was much interested in the discovery that the "Casa del Commercio" (one of the oldest) was so called because it was built and occupied by a company of Genoese merchants.

Traders originally met in maritime cities, near the shore where their ships were moored, on a long platform which, at first, was not covered in from the weather. The first Lonja (Exchange) was built at Barcelona; the prettiest one, at Valencia, in 1482, followed by the stately one of Saragossa, 1551, and that elaborate masterpiece of



A FRAGMENT OF THE ARTISONADO CEILING FROM THE ROOM IN WHICH SANTA ISABEL WAS BORN ; NOW IN THE MUSEUM AT SARAGOSSA.

the plateresque, built by Herrera in 1585 at Seville.

The style of the Lonja of Saragossa was universally used in building the residences of the nobility in what was then the capital city of Aragon. The exterior is well proportioned and vigorous in design; but the great vaulted room, where merchants formerly held their meetings, being too lavishly decorated, lacks the simple dignity of the façade.

The Casa de Zaporta, with a beautiful portal and the richest renaissance patio in Spain, was for many years sadly neglected. Erected by a merchant named Zaporta, who was evidently familiar with Italian models, the details were enriched to suit the florid Spanish taste, the

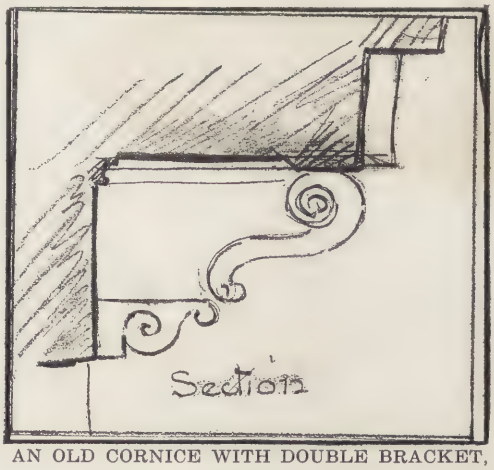


HIGH ALTAR IN SAN PABLO, SARAGOSSA.

galleries and carved balustrades of the second story resting on over-elaborate columns with bracket capitals and anillos (rings), halfway up the shafts, dividing them into two heights. We are told that "it possessed a magnificent staircase, sculptured in exquisite taste, a beautiful patio with fluted columns," etc., etc. The elaborate cornice of wood was found to be in fair preservation after an exposure to the weather of nearly four hundred years, but the stone



ENTRANCE TO THE AUDIENCIA, SARAGOSSA. CALLED BY THE COMMON PEOPLE THE HOUSE OF THE GIANTS.



AN OLD CORNICE WITH DOUBLE BRACKET, SARAGOSSA.



THE LONJA (EXCHANGE), ONE OF THE FINEST BUILDINGS IN SARAGOSSA.



PATIO OF THE CASA ZAPORTA, SARAGOSSA; THE BEST RENAISSANCE COURTYARD IN SPAIN. RECENTLY REMOVED TO PARIS.

carving had been much defaced from years of abuse. The Casa Zaporta, now in Paris, is forever lost to its native city.

A larger palace is the noble building, the Audienca, formerly owned by that powerful Luna family to which belonged the anti-pope Benedict and the "Trovatore" of operatic fame. The common folk call this the "House of the Giants," from the great figures at the entrance. The proportions of the whole building are very interesting.

The Castillo de la Aljaferia, built by the sheikh Abu Dja′far Ahmed, became the residence of the Kings of Aragon, and, later, the palace of the Inquisition. Since its partial destruction by the French in 1809, it has been occupied as a barracks. Some interesting rooms yet remain in a fair state of preservation; a small mihrab and several doorways with intricate Moorish tracery; some splendid artesonado ceilings with the arms of the Catholic Kings (Ferdinand and Isabella), and their motto "tanto monta" (thus far he mounts); a magnificent grand staircase, leading up to the most gorgeous old room I have seen in Spain, with a fine artesonado ceiling and delicately detailed gallery; the well-preserved room where St. Isabel of Hungary was born in 1271, with its dado of gay azulejos, etc., etc.

The Aljaferia stands outside, near the gate where Byron's heroine, "Agustina, the Maid of Zaragoza," distinguished herself during the war with the French, by firing the cannon after the death of her lover, the gunner.

At the side of this gate I saw posted a sign which seemed to me a fair indication of progress. Remembering the extreme poverty and the hosts of beggars in Madrid, Toledo, and everywhere else throughout Spain, it was refreshing to note that Saragossa proposed to take care of her own poor, and therefore forbade their soliciting alms. The sign read:

"In esta ciudad
no se tolera la
mendicidad ni
la blasfemia."

(In this city one allows neither beggary nor blasphemy.) After this I could more readily forgive the bourgeois citizens who were too busy erecting commonplace houses on the outskirts of the city to care for their priceless "historic monuments."

The sketches accompanying this article were made in January, when the dreaded "cierzo," blowing through the icy streets, benumbed the fingers and brought blinding tears to eyes upturned to study details at the top of the houses. However, rough as they are, they will perhaps give a clearer idea of the general character of these interesting cornices than can be obtained from photographs alone, as, owing to the narrowness of the streets, it is difficult to secure good negatives. It will be noticed that the details are peculiar to Saragossa, and quite unlike those of other Spanish cities. *Katharine C. Budd.*





THE NEW HOTEL GRISWOLD AS IT WILL LOOK WHEN COMPLETED.

Eastern Point, New London, Conn. Robt. W. Gibson, Architect.



THE OLD HOTEL GRISWOLD.
Eastern Point, New London, Conn.

The Griswold – A Study in Summer Hotel Building

It is hard to say just where is the beginning of a hotel project, but to arrive at any understanding of its complexity one must certainly go back as far as the arrangement of the financial program, so as to see what controls and determines the expenditures—since this is where many questions of material are settled and many preferences and desires are annihilated.

Capital is an imperative necessity. No hotel project is able, as some inspiring schemes are, to move from the inception with money borrowed on the idea.

The beginning then is when people with money and with hotel experience and with local knowledge and with technical qualifications get together in conference, and, firstly, decide for or against the scheme, and, secondly, determine its main features.

In such a way it was decided to build the hotel here described, which is an interesting example of an interesting class.

The Griswold is a summer hotel on the seashore at Eastern Point, New London, Conn., most charmingly situated where the Thames River opens into the sea. It is less than three hours' journey by rail from New York—or by water an agreeable day's run for a steam yacht. The broad waters of the ocean are here seen swirling in through the great channel called the Race, to enter the more sheltered Sound. Long Island lies far off, scarcely visible except in very clear weather, and the southerly breezes which make summer delightful come in here with such force that the shelter of the harbor is much in demand for yachts of the New York and other famous clubs, and one of the most frequented anchorages on the coast is this lower reach of the river just within the points of the headlands.

New London port is of very old fame and many big vessels sail and steam by this outpost, going to the town further up, where business takes precedence of pleasure. The United States Navy ships frequently visit here, sometimes for a long stay, sometimes for a simple call; and when they come the stretch of water in front of the Griswold is gay with boats and bunting and bands and with vessels which rival the smartest yachts in splendor and speed. All the small craft

which ply for business and pleasure are seen here at their best, sturdy, weather-beaten fishermen going far enough out to need grit and ballast, lighter boats of the on-shore fishing fleet—yachts of the summer trade type hired by amateur anglers and generally provided nowadays with hustling little gas engines as well as sails, and a hundred and more of schooners, sloops, yawls, cats and every other rig of private craft fill these waters with animated interest.

The land behind to the east and north lies in rolling hills and rocky points separating the lower valleys. The roads are old and romantic; stretches of shady woods alternated with breezy meadow, and, every few miles, the interesting history of this old country shows in the quaint buildings of villages with Colonial names. The land, for those who ride, is as attractive as the sea for those who sail.

Such a place is an ideal setting for a summer hotel; and for many years one has prospered on this spot. But age overtakes hotels very rapidly in the twentieth century, and to meet the growing demands for more comfort and more luxury and greater enjoyment the old house has been razed and a new one built larger, better, and in every way a fair example of the most recent ideas in this direction.

The problems which face the owner who undertakes such a work and the architect whose task it is to organize and conduct the campaign are among the liveliest in modern business. In the first place the financing of such a project is a matter of very close calculation and one which seldom works out with a profit. Hotels which are open all the year round, or which have two seasons of brisk business, can make money if they are well planned, and built without extravagance yet with wise expenditure for the up-to-date machinery and equipment which are essential to good management. Then if the good management is developed, and if prosperity prevails, and no mistakes or misfortunes arise, the scheme will succeed.

Summer hotels have another big "if." They are open only about three months out of twelve, and for the other nine months all the capital invested is lying idle, not only unproductive, but deteriorating by disuse. This is the great handicap. It evidently means that to prevent loss interest must be earned at the rate of twenty per cent. in those three months to pay five per cent. for the twelve, and five per cent. only takes care of "fixed charges." To provide any profits worth consideration a rate of forty per cent. is needed during the short high pressure season. But the rates and receipts in a summer hotel cannot be made larger per room or per person than in a winter house, or an all the year round hostelry of equal grade. The problem must evidently be solved in one of two ways: the "fixed charges" must be kept down by economical building and profits must be limited to a sufficient compensation for the business intellect engaged in the work—or else the question must be answered like many another riddle of which the answer is too hard; it is given up. In fact most summer hotels do give up. Mistakes or misfortunes, errors of judgment in the start or poor business later, have carried many such enterprises through "reorganizing" trials whence they emerged with reconstructed liabilities and reduced valuations; and in this way fixed charges are at last marked down. There is another method of finance which oftens accounts for apparent success. A hotel is sometimes only an item in a scheme which includes many other things, such as railroad or steamboat lines or a large estate in process of development, in which case a very low profit or even a loss is accepted and charged off, to be met by desired benefits in the other departments.

The Griswold belongs to this class. The large interests of Mr. M. F. Plant, whose private estate and residence are a short distance away, have led him into this and several other enterprises of a public nature wherein the general improvement of the neighborhood is counted more important than the other profits in the project.

But this does not relax the rules of economic business. Perhaps it calls for more attention to them. In any case the

main point to note is that there is no margin for waste or loss.

The summer hotel demands the closest possible attention to every detail. There must be free use of expensive furnishings and machinery, housed in enormous buildings which tempt waste at all points, where specialists are installing their own particular devices. But the thousands of dollars appropriated must be every one watched and counted. Liberality means success, but extravagance means ruin.

The next factor in importance is time. Time also is money. The short season of three months, if lost, loses a whole year of revenue. More than that, it loses the "good will;" the business relations of numerous customers; and interest, rent, taxes and expense go on all the time, while the building is being erected and furnished, although nothing is coming in. One season dropped out will allow about twenty months for reconstruction, and this has sufficed for many hotels; others have been delayed and had to take two seasons.

The promoters of the Griswold took the most energetic attitude and decided to do the extraordinary. The old building stopped operations September 4, and before the last guest had gone the old equipment was being sold at auction, and the contracts for the new building were closed and signed; and they provided for a splendid structure which was to be open for business in the June next ensuing. This program was made very quickly, but it meant weeks of hard work in preparation, as the advance notice had not been a very long one.

The architect, Mr. R. W. Gibson, of New York, had, beside a previous experience in hotel work, an aptitude for haste and methods of business with which the building owner was familiar, and which had his approval and confidence; in short, an organization already working upon other things was waiting for the enterprise. A firm of builders was fortunately found with just the right equipment, a systematic concern headed by enterprising men, who were at that moment finishing important contracts, and looking for a new field for their capacity. The way in which they started the work promised at once the success they achieved. They began the wrecking of the old edifice before the furniture was removed, and they purchased material and hired labor with foresight and liberality. A weak point of building contractors is often developed in their too great anxiety to sublet all responsibilities and in consequent dislike to undertake anything themselves, even in matters of organization which no one else can be expected to do. Messrs. Maguire & Penniman, of Providence, R. I., showed better judgment; among other things they saw that comfort for their workmen meant better result for all, so for this winter work they provided transportation to the town of New London, instead of leaving the workmen to find lodgings as best they might in the neighborhood. They bought the steamer "Osprey," which had formerly done the hotel transportation, and operated her continuously between the town and the new buildings. They entered into arrangement to embody into their own contract all others which the architect should request, so as to provide for all the details, which sometimes make disputes between one sub-contractor and another, and eliminate delays of that class. And they took an attitude of frank willingness in efforts to do in general what was wanted at a fair price and profit, without trying to extort "all the traffic would bear."

Thus, well launched, the enterprise progressed fast. In the middle of September the old buildings had been partially destroyed, so that new work was able to be begun. By September 30, 1905, a hundred and fifty men were busy, in charge of a competent staff, housed in a neatly adapted executive building (which was formerly a bowling alley). Foundations were being laid. schooners were arriving with cargoes of material, and the frame of the new hotel was rising fast.

About sixty days later the south wing, which was most forward, stood in skeleton its full size, five stories high, with main cornices beginning to stretch their symmetrical lines of Colonial mouldings, and to bind the masses into architectural



1. LAYING UP THE FOUNDATIONS.
2. THE FRAME OF THE MAIN BUILDING.

HOTEL GRISWOLD.

Eastern Point, New London, Conn. Robt. W. Gibson, Architect.

unity; windows began to shape themselves through the sheathings and posts, and still the frame grew longer and higher in the northern direction. It began to take form as a big and imposing block of buildings standing on three sides of a quadrangle and showing about 400 feet front toward the water and having a total length, including wings, of about 600 feet. This length, covering ground averaging about 65 feet wide, gives over 40,000 feet main floor with piazzas.

Then there are separate buildings for power house and dormitories for servants, aggregating about 256 feet long and averaging 40 feet wide, two stories high, so that there is a grand total of floor space of nearly four acres, or 160,000 feet. This space is divided into about 500 rooms of various kinds, with a total of 1,200 windows and almost as many doors. It would waste time to give the quantity of steam pipes and electric wiring used, but these and similar items are of course stupendous. Suffice it to say that the house will accommodate about 300 guests and over 100 servants.

With this preliminary conception of the size of the building it is possible to realize what great work had been done when the year closed. In three months these buildings stood nearly all framed, sheathed and roofed, with window frames set and most of the cornices on and nearly all the roof coverings. Only the dining-room wing was a little behind; some heavy trusses required to carry the three stories of bedrooms above had necessitated special iron work, and here the building was only two stories high; but that, after all, was only a small section of the whole.

The first of January, frequently stormy and cold, came smiling upon this busy scene, continuing the favorable weather of the autumn without snow or frost, and January as it drew to its end saw the buildings enclosed and heated by steam. The old boilers and apparatus had been preserved for that purpose. The work then was practically independent of the weather and thus the first great question in the problem was answered. It was now not only possible but probable that the great building could be built "between seasons." But many things were still in a rather unsettled condition.

The hotel problem is a complex one even when unlimited time is available. After the building was planned and the exterior designed and that work started, the subjects demanding attention in due order were these: Plumbing, water supply, heating, lighting and other electric work, elevators, cooking apparatus, kitchen machinery, ice machines and refrigerators, laundry machinery, boilers and power house, grading and gardening, new roads and paths, furnishings and decorations, transportation and supplies, staff and "help," each of these headings being made comprehensive so that all the many details not mentioned are grouped under one of these broad titles.

A brief survey of the plans and of the motives inspiring it will be necessary to an understanding of the equipment.

The first characteristic of a good plan, favoring economy of construction and of operation, is system. Rooms must be not only square, well proportioned and of varying sizes, but they must be suited to the available timbers for building, and to the furnishings and carpets, and must be all alike in each class. In procuring materials, for example, an awkward or unusual size, a difference of an inch in thickness or a foot in length might cause a waste in cutting up, or a delay in delivery. Odd sizes for beams and posts, while not important in one room, would, when multiplied by hundreds, be a serious handicap. And so designing must facilitate furnishing. After steering clear of that elementary bugbear, a room where there is no place for a bed, there are more subtle points to be considered to advantage. For example, rooms to be carpeted may be done more quickly and cheaply if they are built of a width just taking five or six or any exact number of breadths of carpet, without cutting an odd strip at one side —and, of course, if many rooms are exactly similar, carpets and other things can be changed from one to another and will fit, and many similar motives suggest rules of that kind.

The plan begins then by deciding upon



1. FROM THE NORTHWEST—SHEATHING ALMOST FINISHED.
2. SAME VIEW. VERANDAS AND TRIM WELL UNDER WAY.

HOTEL GRISWOLD.

Eastern Point, New London, Conn. Robt. W. Gibson, Architect.



1. NORTHWEST WING AND MAIN BUILDING.
2. FROM THE SOUTHWEST.

HOTEL GRISWOLD.

Eastern Point, New London, Conn. Robt. W. Gibson, Architect.

three typical rooms, the single room, the double and the large double; and after deciding how many of each are desirable, placing them in relation to one another, and to the bathrooms, so that either type can be rented with or without bath. The bathrooms are reduced to a standard size, and clothes closets, also standardized, are distributed so as to favor the best rooms in the best parts of the house.

The best parts of the house are the south and west. That way is the most charming view and the summer breeze, therefore that way we make more large rooms; and break some forward to make more corner rooms, and so on. Then we arrange our rooms upon halls and corridors. In this matter simplicity is everything. Straight, wide halls are insisted on, always running to the outside wall and window, with no dark, dead ends or corners. This admission of daylight and air enables us to leave out the transom over bedroom door for the benefit of the guest within. Instead of making him uncomfortable that the hall may be lighted through his room, as many hotels do, we give him a transom of paneled wood, which gives him ventilation or privacy with luxurious darkness, as he may prefer.

These straight halls go to make a safe building. In case of alarm of any kind one can always get out expeditiously and safely, because there is a staircase from top to bottom of the building at each end of every hall or corridor, in addition to the usual main stair in the middle and service stair near the office. There are thus seven separate stairs beside the kitchen service stairs and other short flights; and each leads down to a door giving exit close to the foot. In the event of a fire or smoke alarm, a person anywhere in the building can therefore turn away from it with the certainty of coming to a stair. This feature in the plan is more productive of safety than anything feasible in fire resistance; for it has been seen that even in city fireproof buildings the first thing to make safety is free exit.

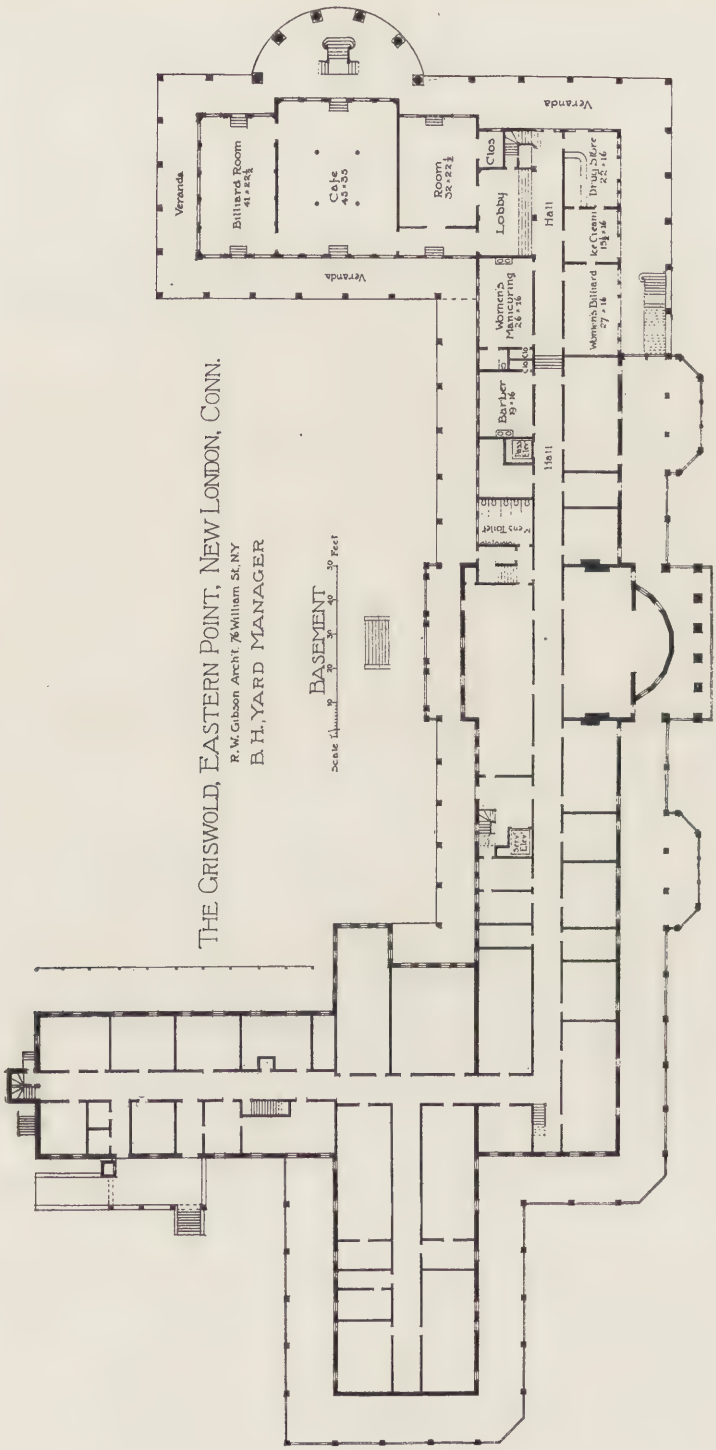
But what can be done in the direction of fire resistance is done. All these halls and rooms are lined with fireproof plaster boards, finished with hard patent plaster; giving much better protection than ordinary lathed work, and while upon this subject it may be noted that fire hose and hydrants always ready are provided inside and outside the building. It is interesting to observe that the cost of doing this work is compensated in the reduction secured in the cost of insurance, thus showing that the insurance companies consider such devices of great value.

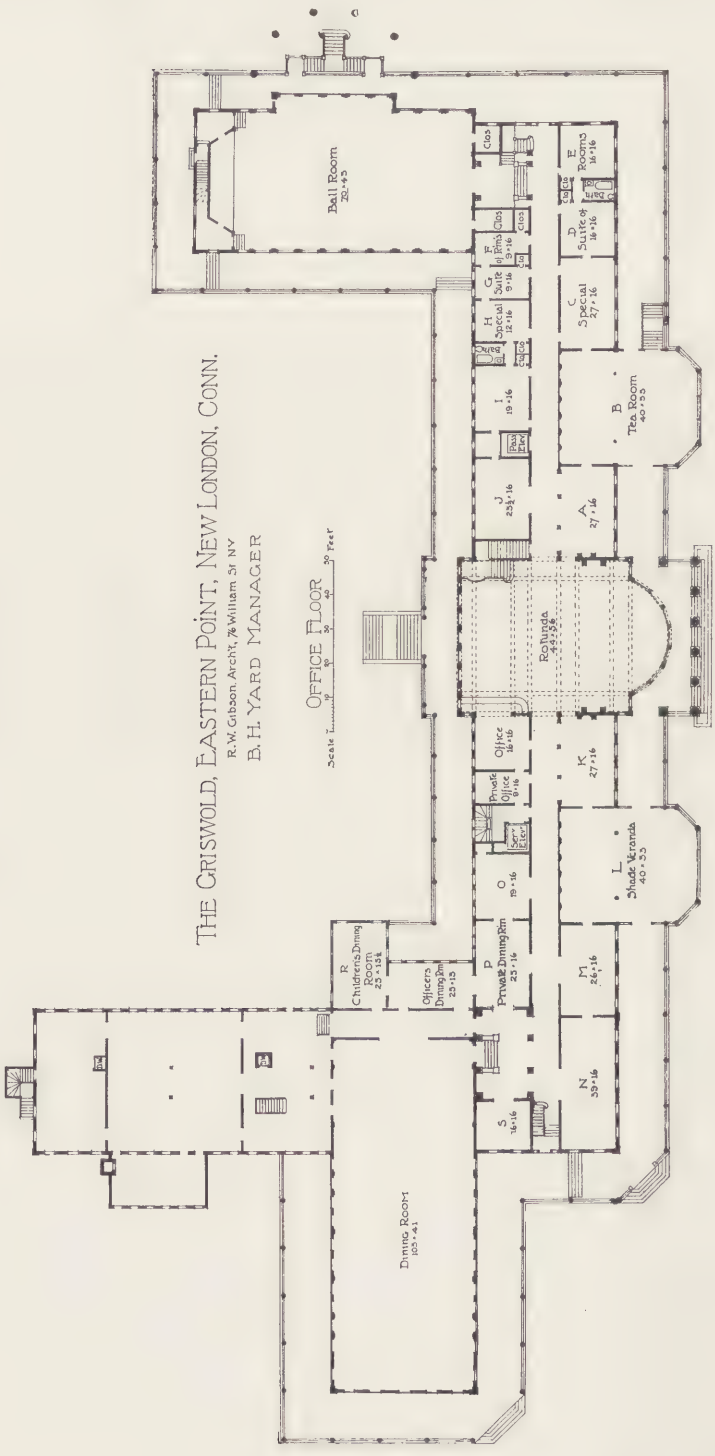
Returning to our plan composition; we find that our desired number of standarized rooms, placed along both sides of a wide hall, and divided into three floors will need about 42 feet of width, and about 600 feet of length, of building. About 400 feet is the most desirable front length, and we therefore dispose of the remainder in wings which enclose three sides of a quadrangle open on the fourth side to give sunshine and perfect airiness. There must be no backyard effect in this court. Instead it is to be laid out in croquet and tennis lawns; and will have the carriage entrance to the rotunda, and will in fact be a garden front.

This general shape decided upon in the upper stories, we proceed to lay out the main or office floor. To do this we must have some regard for the effect and style. We decide upon the Colonial style for its cool, clean airiness, its fresh white paint and wide open spaces; and the manager's preference is allowed to prevail in making the great rooms—the rotunda and dining-room and ballroom—free from columns. Although this involves considerable engineering skill and expense, to support the upper stories over these wide spans, it is believed that the attractive appearance, and facility for service, will justify the cost. So each of these large rooms is planned and placed, having regard always to the lines of walls required above.

The rotunda, 70 feet by 45 feet, is in the middle of the building, with outer walls nearly all glass and with a portico of Colonial Corinthian columns 30 feet high for its front porch.

Next the dining-room. At this we pause to consider the kitchen. The two


THE GRISWOLD, EASTERN POINT, NEW LONDON, CONN.
R.W. Gibson Archt 76 William St. NY
B.H. YARD MANAGER
BASEMENT
Scale 10 0 10 20 30 40 50 Feet
Veranda
Billiard Room 41.22½
Cafe 43.35
Room 32.22½
Clos
Lobby
Hall
Ladies Drawing Room 22.16
Ladies Cloak 19.16
Women's Billiard 27.16
Women's Waiting 24.16
Gents
Barber 19.16
Hall
Gents Toilet
Ladies Toilet
Store


THE GRISWOLD, EASTERN POINT, NEW LONDON, CONN.
R.W. Gibson Archt. 76 William St NY
B. H. YARD MANAGER
OFFICE FLOOR
Scale 10 20 30 40 50 Feet
Ball Room 28'-4"
Rotunda 44'-56"
Dining Room 102'-41'
Tea Room 40'-33'
Shade Veranda 40'-33'
Private Dining Rm 23'-14'
Childrens Dining Room 23'-14'
Officers Dining Rm 23'-15'
Private Office 16'-16'
Office 16'-16'
Sanit Elect
Clos
Pass Elev
A 27'-16'
B
C Special 27'-16'
D Suite of 16'-16'
E Rooms 16'-16'
F Priv 9'-16'
G Suite 9'-16'
H Special 12'-16'
I 19'-16'
J 25'-16'
K 27'-16'
L
M 26'-16'
N 39'-16'
O 19'-16'
P
R
S 16'-16'

are inseparable. We find we need a kitchen 90 feet by 40 feet, or the equivalent. It must be to leeward, so that in the warm weather, when the wind is always southwest, all the heat and smell of cooking will blow away from the hotel, instead of into it. So the kitchen must be at the northeast, and is so placed. Therefore, the dining-room must be north and facing west, and thus it will be toward the water front to enjoy the precious breeze and view. It is made 100 feet by 42 feet. This settled, it naturally comes about that we plan the ballroom at the other end, the south, and make it 90 feet by 48 feet, and as the ground here falls away to a lower slope and the basement comes out above the level of the grass terraces, a part of the basement is taken for additional amusement departments. The summer hotel population in the warm months revels in an abundance of ice cream and soda; so here, in combination with the useful "drug store," is placed a parlor for that luxury; and near to it, on one side a play room, which can be used for whatever games are temporarily favored, and on the other side the hairdressers, manicures and such like comforts. At the southeast corner, accessible from outside is the billiard room and some spare space to be allotted as required.

These departments are all practically part of the main floor, and would be put there if it were not that the basement offered opportunities above ground.

The office floor, having thus its middle and two ends allotted, is divided next by the corridor down the middle, from end to end, with exits both ways, and on each side of this corridor rooms are made, placing those connected with service to the north, including office, with counter and cashier's desk, manager's private office, committee room, private dining-rooms near serving department, staff dining-room, children's dining-room, parlors and reception rooms, telephone and telegraph, and news room and writing room. Then on the other side come ladies' writing room, lounging room, large tea room, which is part of the veranda system, enclosed with glass and shaded with Venetian blinds, and beyond, two special suites of rooms with baths, each including large drawing-room and two bedrooms, available for special or ceremonial use, or serviceable as parlors, when so required.

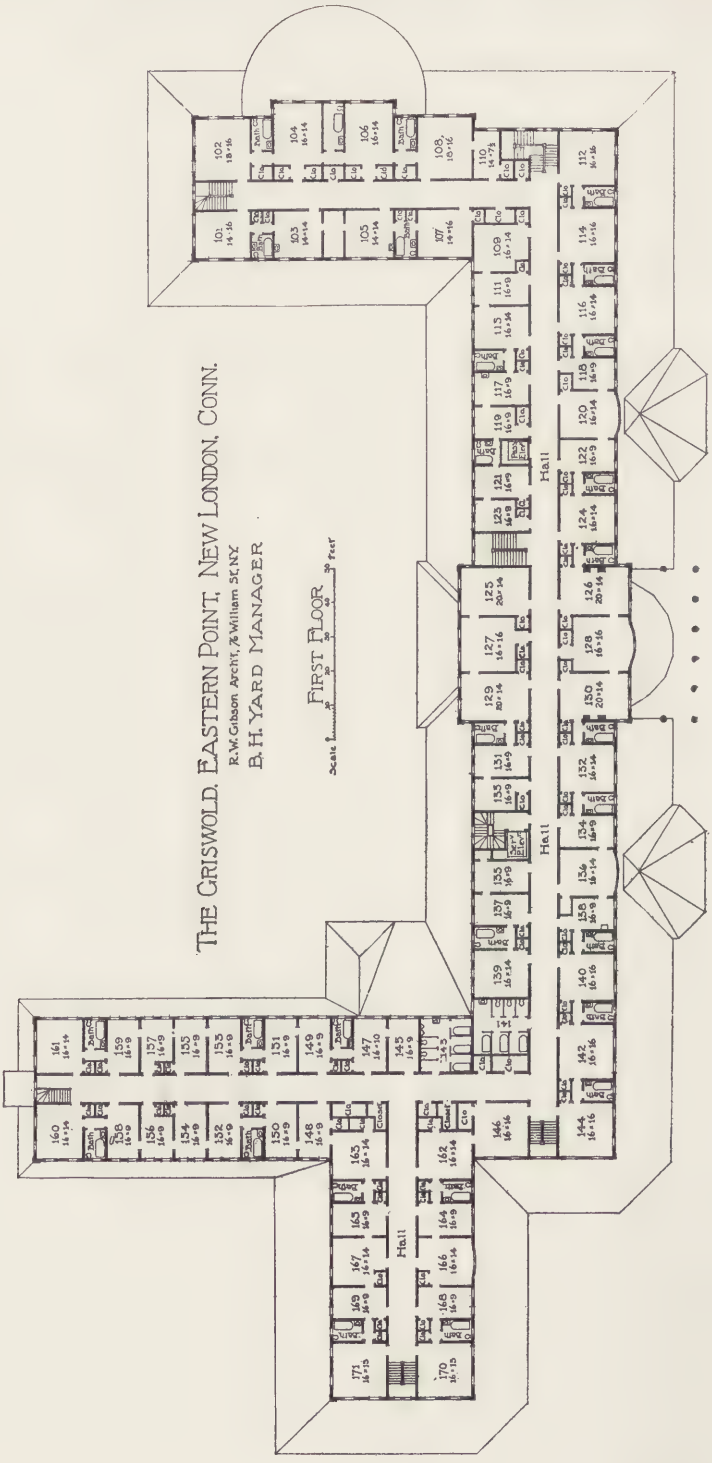
The main stair is in the rotunda, in sight of the office, and of course the principal entrances are there. The whole front, in fact both fronts, are practically glazed colonnades, giving full outdoor views, to water on one side and garden on the other. Two large fireplaces for genuine old-fashioned cheer-giving logs, wait for the wet, chilly days when indoor chairs are in demand.

The elevators are near the office, the service elevator and stair hall communicating with it.

All the main floor is finished with white pillars, columns and cornices in Colonial style of simple, dignified effect, encouraging the luxury of quiet rather than that of ostentation. The dining-room and ballroom are of uniform style except in their color decorations; and with French casements opening down to the floor on both sides, giving access to verandas which will be used in connection with them, they are evidently designed for the outdoor life of the special season.

The motive of each step in the evolution of the plan is thus found in a study of the requirements and surroundings—each department requires contact with some rooms and separation from others; and the easy and economical management of the house and the comfort and happiness of the guests depend upon this being well studied.

Considerable care is well given to the placing of the best rooms. Most hotels have a few rooms considered very choice, and it will be found that these enjoy the best aspect, and are usually at a corner where windows in two directions invite a cross current of air. Now, it is clear that such rooms should not be put near to or over the kitchen, or in any inferior position. The southwest corner invites some of them in this climate, and the middle of the house, where a central block projects, and makes another corner, provides for others. In the present case the architect creates a larger num-


THE GRISWOLD, EASTERN POINT, NEW LONDON, CONN.
R.W. Gibson Archt. 76 William St. N.Y.
B.H. YARD MANAGER
FIRST FLOOR
Scale
Hall
Hall
Hall

ber than usual of projecting blocks or pavilions, and nearly all the rooms on the south side are practically corner rooms, and they are in the choicest part of the building, and here the bathrooms are almost one to each bedroom, while in other parts of the house they are one to two or three bedrooms. Good clothes closets are also necessary, although it would be absurd to make them so large as to spoil the rooms themselves; good rooms can often be found with two closets, which is specially desirable for rooms furnished for double use.

Equipment calls for consideration even before the plan is settled. Bathrooms are arranged over one another so that the pipes in vertical lines can continue to the roof, and there ventilate; water and steam pipes, and especially power pipes, demand such consideration that they may affect the plan, and thus presently the structure is settled, and we turn to the list of equipment contracts for study in turn separately.

Plumbing for four hundred people is necessarily a large item of cost. It must be simple, so that its use will not be attended with annoying breakdowns, but efficient and sufficient. It is standardized, that is to say with few exceptions every bathroom is like every other, and fittings and fixtures can be replaced and exchanged or repaired "out of stock." All the pipes are exposed, the main pipes are painted white, so that absolute clean renewal of the finish can be made every year, after sterilizing or disinfecting, or any other process has been done. All the traps and branch pipes are kept above the floor, so that no holes are cut through, except for the main risers; and thus much annoying leakage into ceilings beneath is avoided, and all the traps can be readily emptied and dried for the winter. Every bathroom has a stop-cock to shut off water separately for repairs. The fixtures are all porcelain or porcelain enameled iron. Every bathroom is an outside room with perfect daylight and ventilation by a good window; and, finally, the bathroom never communicates directly with a bedroom, but always by a lobby, which affords added hanging space.

The water supply is by three pipe wells sunk down into the rock, affording very good water, which is raised by a large duplex steam pump in the power house into storage in a water tower. The tanks are three in number, so that either one can be cut out, emptied and repaired or cleaned without interrupting service, and, as a further precaution against interruption, any breakdown of the pump is guarded by the arrangement of the elevator pump as an exact twin counterpart of the house pump. If one fails the other can do double duty, running elevators by day and filling the tanks at night, for the time needed to repair and restore the other. And both, or either, can be used for fire service, inside fire hose being connected at different points on every floor. The outside hydrants for fire hose are connected to the pubilc water supply with good pressure.

Heating is provided by steam boilers in an outside independent power house, sixty feet away from the nearest part of the hotel. Steam is carried in a tunnel trench and distributed to all the halls and to many of the rooms, so that in the early and late seasons comfort is secured. Steam is also used largely in the kitchen and laundry.

The lighting of a hotel can be done properly by only one method, namely, incandescent electric lamps. This example is so equipped throughout; current being supplied by the public company, and converted to safe voltage pressure outside the buildings; thence received at a great switchboard in engineer's department, and distributed, in various lines with cutouts and switches on each section. The chandeliers are operated in each room by wall switches near door, and brackets are on separate circuit so that they can be left on all night if needed without main wires being changed.

Electric heaters for curling irons are needed in a modern hotel, to prevent the use of lamps and stoves by guests who must have something of the kind. In the Griswold there are receptacles fitted into the light brackets to which can be connected the flexible wire of a heater

at a moment's notice, and the same connection can be used for a movable table light or a small stove in case of sickness or other need.

Electric telephones to every room have become almost a necessity. They not only give guests greater convenience, but they save much service and use of elevators. Any guest can talk to any other by means of the central station in the office. Public telephones are also provided for long distance communication, and a telegraph office, as usual, is placed near the rotunda.

The telephone bells are all connected in the office to a special system of fire alarm, so that in case of need every bell in the house can be rung at once as a warning or call. The same bells are used separately to call guests desiring to be awakened early.

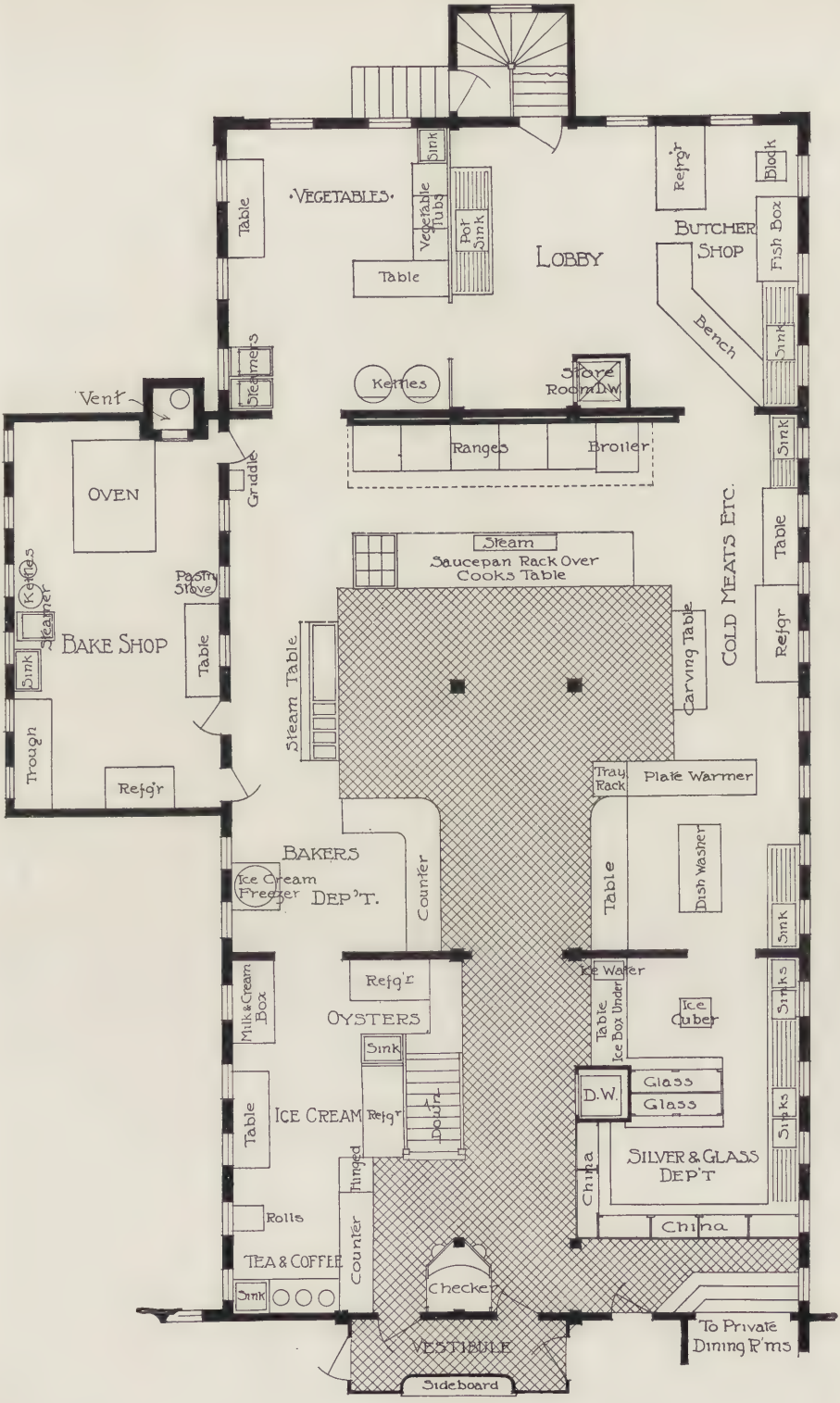
Another installation, deserving special mention, is the vacuum house-cleaning appliances, which by means of air pumps and pipes with hose attachments and sweeping nozzles suck out dirt and dust, and collect it in receivers, to be disinfected and disposed of in much better fashion than the old broom and dust pan achieved.

The elevators especially need careful adaptation. The questions about elevators are much involved. Whether they should be electric or hydraulic, whether plunger or overhead supported, high or lower geared, and so on, depends on local conditions. The Griswold has powerful steam pumps, but has no dynamos, therefore hydraulic elevators can be best operated. They can also be most safely put out of commission and carried through the long winter idleness. Beneath this hotel is solid granite rock, therefore the overhead support was preferred to the sunken cylinder. The elevators have up-to-date rapid machines, with the pumps away in the power house, and with large roomy cars.

A description of the cooking apparatus and the kitchen equipment would fill a pamphlet. Built by a firm of specialists, this outfit seeks economy, not in first cost, but in its perfect operation. It is most modern. Steam from the boiler and freezing brine from the ice machine, water hot and cold, electric current, and air in ducts, serve it with a complexity beyond this opportunity to describe. It must suffice to say that all is in a perfect system. The various departments are placed at both sides and at the end of the large room so as to leave traffic space in the middle. The waiters coming from the dining-rooms pass to the right, leaving the used dishes and taking clean ones and moving in a stream in one direction; without crossing or colliding with the other streams they reach the carving and serving departments each in turn, and pass to the dining-rooms by the checker or inspector at the door. Behind each cooking department is the room for preparation—the butcher shop behind the ranges, bakery behind the bread and pastry, the dishwasher behind the scrap counter and so on.

There is not so much division into little rooms as there used to be. In fact recent practice has erred in the other direction, mixing stoves and refrigerators too intimately in one department. In the Griswold the kitchen is subdivided by screen walls so that some parts are guarded as much as possible against the heat unavoidable in other parts, but these screens are partitions having large openings without doors, which would impede traffic. The order in which the equipment is installed is as follows:

In the serving department, next dining-room, are found on the right glass and silver pantry and sinks and ice-water; on the left, oyster box, counter and sink, bread and cake, tea and coffee, stair to wine room and storerooms, checker's desk at door to dining-room. In the next department the kitchen proper is placed. First, on the right, scrap table and dishwasher, then, in the order named, and disposed in horseshoe form around the room, the dish stack and heater and tray rack, cold meat boxes, butcher shop at back, with refrigerators, etc., cooks' table and "Bain Marie," with ranges behind it; steam table, with behind it the stock and vegetable boilers and vegetable room with refrigerators and sinks, and pot sinks; then pastry department and ice cream



MAIN DINING ROOM

THE KITCHEN AND ITS DEPENDENCIES—HOTEL GRISWOLD.

Robt. W. Gibson, Architect.

Eastern Point, New London, Conn.

freezers, behind which, in separate extension, is the bakery with oven, troughs, hot plates, etc., and this completes the circuit into the serving department with cakes, tea, coffee, etc. Several implements, such as knife polishers, ice cubers, etc., too numerous to mention, are placed where most useful. The kitchen is 90 feet long and 40 feet wide, with bakery extension, and underneath is a similar space divided into storerooms and cold rooms and receiving department, with separate stairs and two large dumbwaiters to supply the kitchen therefrom.

Nearby, in the basement, are four or five dining-rooms for different classes of servants.

The refrigerators are, of course, scattered in various store departments and in the kitchen, etc. They are all cooled by freezing brine, which is circulated from refrigerator machinery in the separate engineer's department. The ice machine also produces block ice for use in other boxes and for cutting up.

As soon as these contracts are settled the laundry must be provided for. For this office there is a building about 70 feet by 36 feet, with dormitories for women over it, all distinct and separate from the hotel, and adjoining the power house, away to the northeast, which is to leeward of the main buildings. These buildings are disposed so as to conceal a large drying yard. The machinery includes engine, washers, starchers, large steam heated mangles, ironers, pressers, drying rooms and the usual equipment for hand work.

The boiler house nearby contains twin-tubular boilers, supplying steam for all the machines and utilizing the exhaust steam for heating when needed.

The specifications for lighting fixtures, office furniture, safes, shades and a few other things complete the work usually grouped with the building contracts.

But before these are done work must be begun on the grading and gardening, plans for terraces and approaches, roads and paths.

The external effect of the building is, of course, enhanced by suitable landscape architecture. The approach to the main entrance is raised upon a terrace formed by an ivy-clad stone wall surmounted by a balustrade with flower vases and statuary, and below it a small fountain plays into a pool of aquatic plants, and a stretch of lawn is enriched with a few gay colored flower beds.

Then attention is given to the removal and planting of trees and laying pipes and drains.

Simultaneously all the interior finishings, the furniture of all kinds, carpets and rugs, pictures and bric-a-brac, library and account books, are cared for by contracts calling for delivery a little before the date of opening. It is interesting to observe how much is possible in modern business, in these methods of anticipation. It is not astonishing that delays occasionally happen, but rather remarkable that they are not more frequent. Here we have a program by which fifteen or twenty important contracts are aggregated and brought to bear upon a certain plot of land, and during one winter season skill and capital in a hundred different places busily produce the innumerable articles, and commit them to freight cars and steamships; and at the appointed time, if circumstances are propitious, and enough impulse has been applied, a machine in working order, more or less perfect, appears and is put into operation, one might almost say comes to life.

Such a complex machine as a modern hotel building produced in the space of time between two seasons is not only an achievement in its own class, it is a demonstration of the splendid organization of American business.



PERSPECTIVE VIEW—ROYAL INSURANCE BUILDING.
Corner of William Street and Maiden Lane, New York. Howells & Stokes, Architects.

The Royal Insurance Building

The building that has been designed by Messrs. Howells & Stokes for the Royal Insurance Co., of Liverpool, at the northeast corner of William Street and Maiden Lane, New York City, presents several interesting features both in plan and in elevational treatment. The plan was practically dictated by the exigencies of the site. William Street and Maiden Lane do not cross at right angles; this results in an obtuse angle facing south and west, of which advantage has been taken to not only round off the corner of the building, but to treat the corner as the architectural axis of the composition. On this axis lies the main corridor, which leads into a hexagonal elevator hall, giving a certain interest to the plan. The result is a symmetrical composition, giving nearly equal elevations on William Street and on Maiden Lane. The same architecture, therefore, appears on both streets. The general exterior treatment deserves a passing notice for its attempt to make the color and texture of the materials count as integral parts of the design.

The building is seventeen stories high, not much of a skyscraper as we judge them now, but still a tall building for the area it covers; of this height the lower four stories are treated in Georgia marble, the upper three in light terra cotta, the fourth story from the top in polychrome terra cotta, and the intervening nine stories in red brick, with marble dust joints, white terra cotta sills, keystones and imposts.

The important feature is the entrance, which it has been attempted to treat as a feature in scale with a seventeen-story building. As has been said before, it is on a curve. and is three stories high. The whole is crowned by a clock, supported by the arms of the Royal Co., the Lion and the Unicorn, with the English Rose and the Scotch Thistle. Under the main cornice, just above the doorway proper, are three cartouches; the center one bearing the date of foundation of the company, the one to the right. the cross and dagger, and the one to the left, the Liver, the bird from which Liverpool was named.

As it was difficult to study in drawings an entrance on a curved plan, a plaster model at a half-inch scale has been made by Messrs. Rochette & Parzini. A photograph of this model appears with this article. The clock dial, which looks almost directly up Maiden Lane, is treated in colored enamels, as are also the arms of the company. Altogether, the building should present an agreeable composition of commercial architecture, enhanced by the use of color in a purely architectural way.



FIRST FLOOR PLAN—ROYAL INSURANCE BUILDING.

Corner of William Street and Maiden Lane, New York. Howells & Stokes, Architects.



DETAIL OF THE ENTRANCE—ROYAL INSURANCE BUILDING.
(From model by Rochette & Parzini.)
Corner of William Street and Maiden Lane, New York. Howells & Stokes, Architects.

Opening the Center of Denver

Invited by the Art Commission of the City and County of Denver to visit that city and consider plans for its beautification, I found existing a very interesting opportunity for the creation of a central scheme of improvement. If carried out, it will give to Denver an esplanade of such architectural and decorative possibilities, and in such close connection with the business district, as to make it, I believe, second only to the "Cleveland Plan." Its cost would be considerably less than the latter's, and in its completeness—not likely to be realized at once—it connects the park system with the very heart of the city. The link which does this is that upon which action will probably be deferred for some years, as it can be with no excessive danger; but if the rest of the plan is carried out, the artistic obviousness of this, added to its utilitarian value, seems likely before many years to create a popular demand for the scheme's completion. In the East this might appear extreme optimism; but Denver is full of faith in itself, of ambition and of enterprise. It wants to be—as it can be, as it would pay it to be, and as, happily, it can now afford to make itself—one of the beautiful cities of the world.

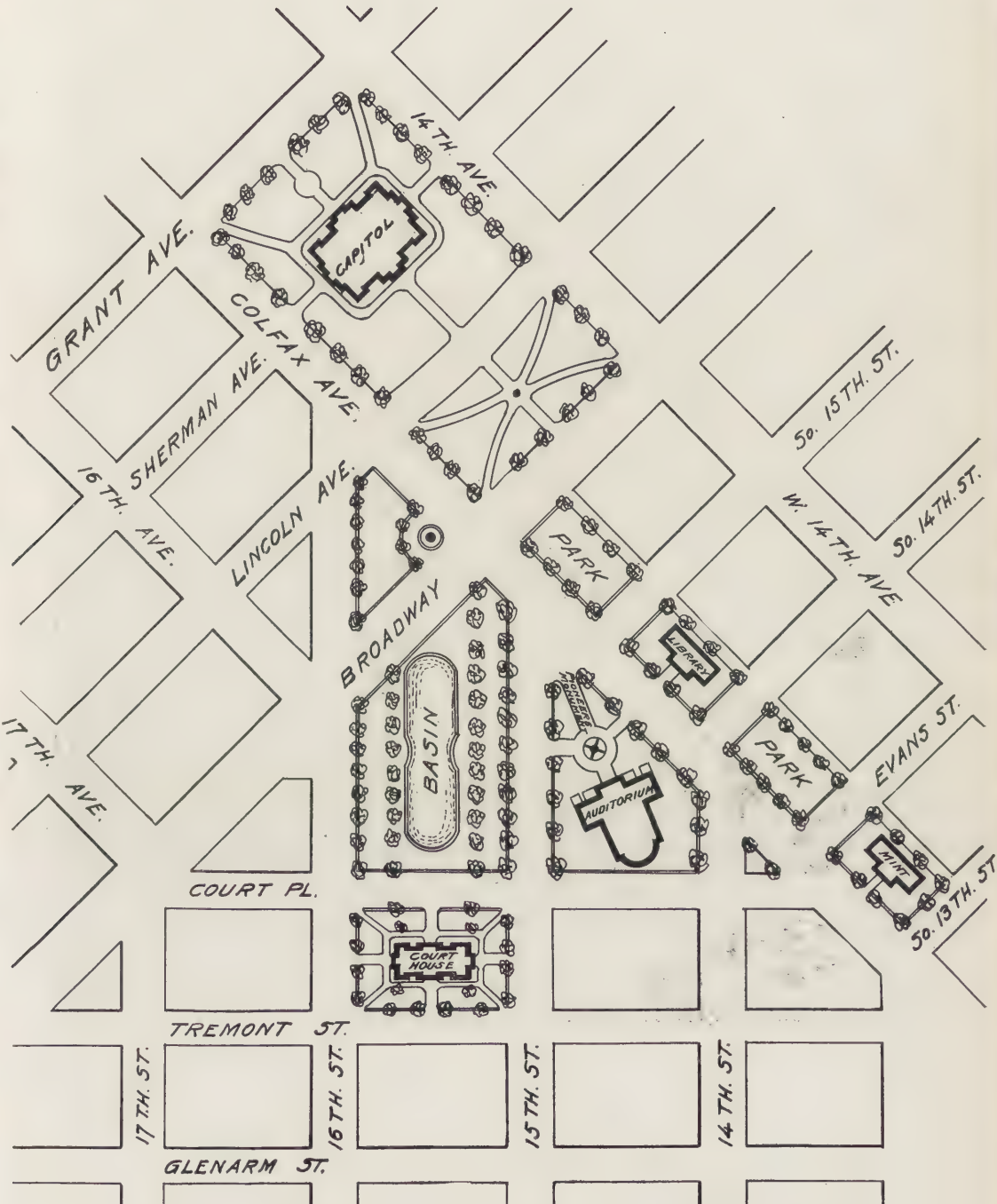
Yet the plan, simply as it works out, was not directly obvious, and required considerable thought. The State Capitol, an outwardly imposing structure with a dominating dome, is commandingly situated on a site of superb natural attraction, overlooking the older and business sections of the city, and offering a panorama of two hundred miles of Rocky Mountains. Unfortunately, however, it is placed at an angle with all the business part of Denver. The streets of the latter, which is in the original Congressional Grant Tract, approach at a sharp angle the perfectly regular checkerboard plotting, in which is situated the parallelogram that makes the little Capitol park. This abuts on a hundred foot street, Broadway, which is a boundary of the Congressional Grant. Thus, standing on the Capitol terrace, one sees directly beneath him an old residential part of Denver; and then turning half to the right, he sees the tall buildings of the business section. Towering among them at no great distance, and with only low buildings intervening —two-story structures, stables, and some vacant land—rise the high shoulders and dome of the County Court House, harmonizing not badly with the Capitol itself, though the two are screened from each other except from this one vantage point. Prowling now among adjacent streets, one finds the new and chaste little Mint on the first rectangular street dividing the Congressional Grant Tract from the old residential section, and facing toward the business district. With a block between, but on the same side of this same street, and only the second block from Broadway, is rising the new and very beautiful Public Library. To bring the Capitol into relation with the business district of the city, this being adjacent, and to establish some sort of connection between these various near-by public buildings that would further dignify the Capitol and emphasize the city's recognition of an obligation as the capital of the state—these were the problems that at once presented themselves as the most important to be solved.

The suggested plan contemplates the extension of Sixteenth Street, now terminating at Broadway, to the Capitol grounds, centering on the dome of the Capitol and opening a fine vista of that on the most important business street of the city; the purchase of the land lying between Fifteenth and Sixteenth Streets and the Capitol and Court House, and its clearance; the purchase of the triangular pieces lying between this reservation and the Library and Mint; the purchase of the small strips between Mint and Library, and Library and Capitol park; and then, eventually, the cutting through of a parkway, to run diagonally from the Capitol grounds to Congress Park—the principal scenic park of the city—opening midway the very beautiful Protestant cathedral that

is about to be erected on an utterly commonplace lot, as far as its civic consequence goes. The whole distance would be little—writing without a map and with no figures, I should say not more than half a mile—and all through that region every vacant corner lot is crossed by a well-traveled diagonal path —in mute but eloquent appeal for such diagonal "short cut." The space cleared between Fifteenth and Sixteenth Streets and the Capitol and Court House is 400 feet in width. The plan is to carry through the streets at their present width, marking the inner street line by a row of trees; to plant on either side of the middle strip an inner line of trees that shall be at the building line of the Court House, so that the vista shall exactly frame that structure, while the esplanade will be furnished thus with a pleasant shaded walk on each side. On the side of Broadway nearest the Capitol, there will be a triangular piece of ground, left by the extension of Sixteenth Street. Here I suggested a circular basin with one or more jets of water; this water then to be carried by pipe under Broadway, and used to fill an oblong pool, or basin, that would occupy the major part of the space between the inner row of trees, and extend almost to the Court House—which would be reflected in it. The details of the plan work out nicely, considerably enhancing its effectiveness, though the mere presence of water in itself would prove a novel and peculiarly attractive feature in Denver. On the reserved triangle lying between this esplanade and the Mint, and placed at such an angle as to suggest an arc, so harmonizing the antithetical positions of Mint and Court House, I recommended the placing of the new Auditorium, with its Chamber of Commerce front, upon which work is about to begin. In front of it, on the axes of this structure, of the Library and of the park scheme, there was offered a very effective site for the Pioneers Monument, for which $60,000 had been raised, and which it had been planned to place half a block away, where it would have been on the axis of nothing. This in rough outline was the plan.

It is estimated that the land alone will cost not less than $3,000,000, and though Denver is abundantly able to expend this sum for a worthy result, the Report and recommendation made a considerable stir. After the first rush of this, two of the newspapers opened their columns for discussion pro and con, and for two weeks a couple of columns of letters were published every day. At the end of that time it was said that many scores of letters still remained unpublished. The Report was submitted January 19th, and on February 8th a dinner was held under the auspices of the Real Estate Exchange at the Brown Palace Hotel to consider the project. Some four hundred were in attendance—the maximum capacity of the room—and the applications for seats far exceeded that. The gathering was described as the most representative in the city's history. The Mayor made an excellent speech, presenting the financial aspect of the matter and a plan for meeting the expenditure. Speeches were made by other prominent men, including an admirable presentation of the question's civic aspect by the President of the Art Commission—Henry Read. Enthusiasm rose to a high pitch. The Mayor's plan contemplates the issuance of fifty-year bonds, and for this there is required a revision of the charter, which now restricts the city to short term issues. The matter thus waits upon the outcome of the charter election, and the plan, if carried through, will be at popular behest.

C. M. R.



PLAN OF THE CENTER OF DENVER, SHOWING THE PROPOSED IMPROVEMENTS.



FIG. 1. CHICAGO TELEPHONE COMPANY'S BUILDING.

Chicago, Ill. Pond & Pond, Architects.

Factories and Warehouses

The interesting subject of factory buildings includes more than factories alone — more than "factories" and "warehouses" taken together. It includes, for logically it must include, all those buildings which are to be characterized as follows:

They are (1) obviously utilitarian, with but little evidence of money spent on ornament of any sort, and with (2) no trace of money spent in making the plan of the exterior traditionally architectural at the expense of every-day use. They must be, therefore, separated from any and all of the recognized historical styles of architecture; and this is the cause of the deep interest they are capable of exciting. If (3) they require modern devices in building, those must be used boldly, simply and without disguise.

These considerations seem to be well represented in the buildings we have discussed in these columns under the general head of Factories and Warehouses; but almost never are they all met in the same design. Almost always is there avoidance of the third requirement, at least. Almost never is a wholly modern method of building acknowledged to be used "for all that it is worth."

In the Chicago Telephone Building, Figs. 1 and 2, the second requirement seems to have been ignored to a great extent. Unfortunately, too, the putting in of those seventeenth century "bands" around the square uprights which enclose the door-piece, and the crowning of them with very aggressive consoles, which are used as if they were capitals to crown the projecting piers, and also as supports to carry a projecting doorhead much too light and thin to need them, all are to be regretted. No one, not even the designer of such a building, would call them beautiful or even attractive in themselves—those elements of design are not accepted as beautiful in themselves, as a piece of floral sculpture is, or a Greek anthemion; they are accepted only as parts of an admired style. But, by our second requirement, the whole, and also the parts of a historical style, are forbidden to warehouse and factory design.

Fig. 2 shows this doorway on a large scale, from a good point of view. Seen in this way, close at hand, it is always interesting to follow up a piece of careful building carried out with deliberate intent. You cannot spoil a good square-edged piece of brick and stone masonry altogether! If you go near it and see how it is made, you are bound to be interested, provided you have a soul in you for that kind of solid and tangible thing. He is no true student of architecture who does not love bricks and stones for themselves—for their weight, their permanent squareness, their sharp-edged and flat-bedded quality. And, moreover, the warehouse-and-factory way of design is peculiarly susceptible of this means of expression. But to have the stone binders projecting three inches or thereabouts from the brick pier, providing a score of sharp corners against which you may strike your knee or your elbow, and this for no added purpose of solid verity, but merely to affect a decadent style of neo-classic architecture, seems a pity. The consoles, I suppose, cannot be explained at all.

Fig. 1, however, shows the whole building together, and this is as attractive as so plain a building is likely to be in our period of ungracefulness in design. A building may be good and permanently interesting without grace; and that is fortunate for us, because grace is about the last thing which the twentieth century can get. It is only the constant student of nature, the man who draws or models all day as a student of Life who has any knowledge of grace. The decorative designer as such has had it cut off from him by two centuries of deterioration.



FIG. 2. THE DOORWAY—CHICAGO TELEPHONE COMPANY'S BUILDING.
Chicago, Ill. Pond & Pond, Architects.

One detail must be mentioned because we may praise that while we deprecate its close likeness in the door-piece, Fig. 2. That detail is found in the seven upright members which probably a French designer would call *chainages,* three of which form strings of quoins at the corners of the building, while two of the remainder ease off the slighter corners at the recess in the middle of the front, and the other two are merely echoes of the systems of quoins. These seven uprights are composed of nothing but brick racking, the course of brick projecting an inch beyond the face of the wall; in each course, 4½ lengths of brick —36 inches—and 37 of these projecting courses in the height of the wall, alternating with 52 courses which remain flush with the wall, and three courses more. These three form the one exception to this uniform system; at the lintel-course of white stone above the first tier of windows, the corresponding courses of brick are all three in projection, making an effective prolongation of the stone band. The way in which this small detail has been conceived, and has been used to express the thought that this lintel-course must be continuous, is worth a great many dollars worth of the common architectural adornment of the day.

It remains to be said, perhaps, that our first consideration stated above, has been fully met; the exterior design expresses a careful arrangement and ample lighting, a perfectly well organized service building.

Warehouse and factory architecture finds another interesting exposition in the new building by Hill & Woltersdorf, at the corner of Indiana Avenue and Eighteenth Street, in Chicago, Fig. 3.



FIG. 3. BUILDING OF THE EASTMAN KODAK COMPANY.
Indiana Avenue and 18th Street, Chicago, Ill. Hill & Woltersdorf, Architects.



FIG. 4. THE DOUBLE CORNER ENTRANCE—BUILDING OF THE EASTMAN KODAK COMPANY

Indiana Avenue and 18th Street, Chicago, Ill. Hill & Woltersdorf, Architects.



FIG. 5. THE INDIANA AVENUE ENTRANCE TO PASSENGER ELEVATORS AND PUBLIC STAIRS—BUILDING OF THE EASTMAN KODAK COMPANY.

Indiana Avenue and 18th Street, Chicago, Ill. Hill & Woltersdorf, Architects.



FIG. 6. THE SERVICE ENTRANCE ON 18TH STREET—BUILDING OF THE EASTMAN KODAK COMPANY.

Indiana Avenue and 18th Street, Chicago, Ill. Hill & Woltersdorf, Architects.

This contains the workshop and the offices of the Eastman Kodak Company, and with these a corner store with large plate glass windows and showy door-pieces, which is to be occupied, we are told, by a retail business in photographic supplies. The difference between the workshop and the office may be known, perhaps, by the larger and smaller lights of glass; and we note at once willingness on the part of the designer to give to the shop front that decorative treatment which the factory and its entrances do not call for, and with this a wonderfully sensitive feeling is manifested for the how much and how little—for the exact amount of adornment which such a shop-front in such a building could be expected to bear. That door-piece is shown in Fig. 4. This detail, I repeat, calls for warm praise—a note in criticism which we have rare occasion to sound. To be able to say of a thing of this kind that it is hard to see how it could be bettered, is to give the largest and most decorative gold medal which the critic has it in his power to bestow.

These remarks all imply that a factory building should be plain—and this one is plain—quite devoid of elaborate ornamentation. The corbeling out of the cornice with several systems of setting of square bricks ingeniously combined explains itself; but the slightly varied band in the face of the projecting wall-piece above the recesses for the windows cannot be made out in the photograph, even with a Stanhope lens. We must accept it as a minute piece of delicate brick-laying with a pleasantly mottled surface. The blocking course or parapet above the cornice is an effective termination to the building, explaining and concealing at once a roof almost flat.

Two other doorways of this building are shown in Figs. 5 and 6. There seems no special need of commenting upon them except to say that the door, Fig. 5, has a fortunate general arrangement, with most unattractive details in relief, and that one would rather have seen them both alike and both simpler. The entrance on the extreme right is the driveway to the shipping court, and the architects state that the huge, broad lintel spanning this is a steel girder which rests upon a steel corner column, although the girder and the corner post as well are furred and plastered with cement, thereby securing a more architectural appearance as well as protection from fire. It is bitterly to be regretted that we are not allowed to show our iron structural elements. It is greatly to be feared that, so long as we are compelled to cover them up to the absolute concealment of their form, buildings in which metal enters as of important constructive importance can never become interesting as architecture.

Russell Sturgis.





HENRY JANEWAY HARDENBERGH.

A Conversation with Henry Janeway Hardenbergh

A quiet interior, a harmony of deep reds and browns, frugal but elegant equipment and a subdued light effect, this was the first impression I received. Then out of the window a glimpse of the colossal Waldorf-Astoria, one of the architect's most notable achievements. The architect himself, Napoleonic in stature, but of wiry build, with a shrewd, worldly-wise expression in his eyes, at his office desk on an elevated platform that runs along the window, and I on a leather chair below, which obliged me to look up to him.

The first moments in contact with a new personality are always decisive with me, and, in this instance, I had not only to reckon with the personality of the architect, but also a sample of interior decoration, and a successful specimen of his work to judge from. It was like hearing a pianist play the theme of the variations which he is going to perform. "This man knows what he is about," I thought to myself; "I am sure he deserves the reputation he has of *having a roof on every house he builds.*"

We at once settled down to serious business, to an interview, one of those old-fashioned, matter-of-fact interviews that have really taken place, and are in no way masked with inadequate ornamentation.

"I believe you studied with one of the old New York architects, Detlef Lienau by name?" was my first turn of the key.

"Yes, he was a remarkable man for his time," and Mr. Hardenbergh's face was lit up for a moment as with pleasant recollection. "Of course, building—I entered Lienau's office in '63—had not yet reached such dimensions in New York, as it did in the following decades. But he did good, solid work, notably in the French Renaissance. I do not remember at this moment all he did. One of the best specimens is that old residential dwelling, Tenth Street and Fifth Avenue."

"You never studied abroad?"

"No, I never got to Europe until after quite a number of years of active practice."

"Then your case seems to prove that a man can become an architect without studying abroad?"

"Emphatically, yes," he exclaimed with peculiar emphasis, that did not solely betray conviction, but also pride in what he himself had accomplished. "It only depends on how one studies. For that matter, one could live at the seashore, and become a good architect. Of course, there were drawbacks; books and photographs were scarce at that time. The facilities for reproductions were still slight. I remember how delighted I was when I got my first collection of Parisian buildings; I thought it a rare treasure."

"But are you not of the opinion that there are too many publications nowadays?"

"Decidedly so. The young men rely too much on their assistance. They go from one book to the other, and get a little bit here, and a little bit there; but do not understand how to put them together."

"I suppose you served a real German apprenticeship at Lienau's?"

"Yes, it was a true apprenticeship. Conditions were different. He had never more than six men in his office. He could really devote some time to them. Now, many offices have forty to fifty men on their pay-roll."

"I know of one firm which, several years ago, had as many as ninety-three draftsmen in their employ. This, I suppose, makes personal instruction impossible in these days?" I interpolated.

"Absolutely! I have not more than ten minutes a day to give to the younger men—but they learn from the older draftsmen," he said, after some reflection. "Yet without arrogance, only with due respect to my way of doing things, I can say that I have done my work with a

smaller clerical force than most offices. If you have too large a force, you have to depend too much on other men. You lose touch with your own work. The individuality of one's style is apt to suffer thereby."

"You are particularly interested in municipal art?"

"Yes, I was one of the founders of the Municipal Art Society."

"And if I am not mistaken, you individually have also helped matters along on that line?"

"Yes, I have always regarded mural decoration a part of architecture, and always tried to persuade my clients that there was a necessity for such a thing. At the Waldorf-Astoria we simply gave out the work. I had made up my mind to have Blashfield, and insisted until I got him. At the Manhattan, in order to avoid what might look like favoritism, I managed to arrange a competition with a thousand dollars in prizes. Five artists competed."

"How did the painters adapt themselves to the work?"

"Of course, it was a new experiment with them. They all 'paint' a trifle too much. They do not seem to be able to adapt themselves to their environment, to any particular style. There are hardly any of them who understand ornament. Simmons seems to get nearer to the real thing than any of them. And even he is still too much of an easel painter. Look, for instance, at this little panel," and he pointed to a canvas by Shean, over the mantelpiece, representing "The Architect and His Client," in mediaeval costume and surroundings. "It is very nice, well painted, but hardly mural in feeling."

"You seem to have made a specialty of hotels?" I asked, remembering that we owe to this architect the popular structures of the Waldorf-Astoria, the Manhattan, the Dakota, and others.

"Yes, it seems to have been my fatality that things have come that way. I have built a large number of them. But I have also done a good deal in apartment houses, and lately in office buildings. To show you how eclectic an architect really has to be: One of my first commissions was a Gothic chapel for Rutger's College, in New Brunswick, my native town. Soon after came a row of Ohio limestone dwellings. About the same time I constructed a Turkish bath in the private house of a gentleman. It was done all in the Pompeian style. I had the entrée to the Neo-Grec through Lienau. Lienau was a pupil of Labrouste, the architect of the St. Geneviève Library, in Paris, and the Hospital at Lausanne, who effected a successful combination of the modern French and Neo-Grec. You will notice in all the works of the French architect a certain simplicity and severity of detail."

Labrouste was one of the first who succeeded in the employment of modern building materials, thoroughly in accordance with beautiful form and original ideas. Through Lienau his skill and cultivated taste has descended upon Hardenbergh, who thereby was prepared to avoid the reefs on which so many of our modern architects have suffered shipwreck. My remarks gave Mr. Hardenbergh an opportunity to express his views on the modern French.

"I have always been charged, though unjustly, of being opposed to the modern French. This objection applies only to later work in the style. They can't go much further. It is all for sensational effect, and will end in sheer brutality. Their ornaments," and he made a descriptive gesture, "are crude and clumsy. There would be no objection if they would stick to the fine examples of the past, but this way——"

"Do you think the New York architects set the taste for the whole country?"

"I think so. When Richardson had built his Trinity Church, you saw bad Richardsons cropping up all over the country. For instance, in Chicago, it was simply awful. Of course, we all do incongruous things in our time. They lately tore down a building of mine, of which I felt very proud at the time it was built; but I was really delighted when it was gone."

"Do you think we will arrive at more uniformity of style?"

"Possibly," he remarked rather drily.

"Conditions and needs will bring it about. But elements of new formations must necessarily be based on reminiscences of those already existing."

"And at present these reminiscences seem to be all modern French," I insinuated.

"Not entirely; the classic movement is very strong. Nearly everything that some of our leading architects build of late has the characteristic columns and the tympanum on top. I myself am very fond of the German Renaissance. Not when it was loud, overloaded with ornaments, but modified. I also have a liking for the Dutch Renaissance," and he showed me a sketch of the New York Club. In its elegant simplicity it reminded me slightly of the building of the Fine Arts Society, which I consider one of Hardenbergh's masterpieces.

"Yes, that was really a work of love," he explained. "If it only could have been placed differently. The apartment house next to it spoils much of the effect. The model for it was a Francois I., in the Court de la Reine, Paris. I only saw it two years ago, long after the New York building was finished. I had been in Paris before, but had missed it. And when I at last made it my object to see it, I was highly delighted."

"How is it with more utilitarian buildings? Do not the difficulties of the internal arrangement take so much thought and time, that there is comparatively little left for the consideration of the art element?"

"Not in the least," he said most decisively. "You see, the laying out of the plans of lighting, heating, etc., one has, after all, to leave largely to the engineers. No man can do that all by himself."

"You try to make the interior correspond as much as possible with the outside; it seems to me that the latter is often merely a shell."

"Yes, that is a fault that I find with many buildings. But I always try to bring everything into a certain harmony. Of course, in a hotel all tastes have to be satisfied, and one must know pretty well how the space is going to be utilized before one can realize the artistic vision of the outward appearance of a building. The architect has to deal with three factors, all of equal importance, first, the artistic element; second, construction, and third, interior decoration. It is just as in music, a certain *Leitmotif* should run through everything. Otherwise, it would be merely a collection of miscellaneous details, as you have correctly said, a husk, a shell. The trouble is, that we are always in such a hurry in this country. At times, this may prove a stimulant. One simply has to go work and do it. But if it comes to details of ornamentation, or interior decoration, it is deplorable. The outside of a building should always indicate what is inside. Look, for instance, at those big windows over there," and he pointed at the Waldorf-Astoria as an object lesson. "You feel that there is a big assembly hall behind them, and so it is with everything. The windows of the various parlors are still large in comparison with those of the ordinary rooms, but much smaller than those of the ballroom."

This emphasized a trite architectural truth, that the outside forms must be characteristic of the aim and object of the interiors, which they hide from view.

"How do you think our architecture compares with the European; do you think we have as much claim to originality?"

"I am certain of it. And that is said without any conceit or partiality. In England they are not handicapped by space, as we are here, and they have quite a number of beautiful buildings to their credit; but they are not more frequent than on this side. L'Art Nouveau in France was a failure. The rest is entirely under the influence of the modern French. In Italy they live largely on classic traditions."

"Have you been at Cologne? There they seem to have produced a great variety of forms."

"Yes, but that is Belgian influence. The Dutch Renaissance is very adequate."

"It always seemed to me that the new Court House in Brussels is a very fine specimen of modern architecture."

"Very impressive. The combination

of Assyrian and classic styles shows very much ingenuity; but one can hardly call it good architecture. No, I think we are fully awake over here. And in the specialty of residential houses, of office buildings, and hotels, I think we have accomplished what nobody else has done. We have adapted ourselves to new conditions, both esthetically and in accordance with style."

Our chat, excepting a few telephone interruptions, had run on smoothly. To every ten words I had uttered, Mr. Hardenbergh had, at least, two hundred to his credit. Getting ready to leave, I remarked:

"Have you any special method in following out your theories?"

"My method is really a very simple one. There, for instance, is a sketch of the new Plaza Hotel," and he showed me a sketch of that giant caravansery. There seems to be a striking tendency in this latest of his work, to abandon the picturesqueness and irregularity of his former style, and to arrive at a simpler, and at the same time more pleasing effect. I had involuntarily to smile, however, at what seemed to me interminable rows of windows. He guessed my thought: "None of them is unnecessary. Now, what would be the use of introducing columns, colonnades, as they do. The Greek didn't build buildings of this kind. Edifices of this order have been unknown to past generations. They have no prototypes. All one can do is to take some good model, that served some kind of purpose as a hotel, and enlarge upon it. And then embellish it as well as one can, as for instance, in this case, with the early French Renaissance."

After I left, my first thought recurred to me: He well earns his reputation of never building a house without a roof. I had not been mistaken in my first judgment of him.

For here we have an architect who avoids everything that savors of pretence and unreality. Whatever forms he gives us represent the thing which they really are, and the intentions they express are existent. He gives us the reciprocal relation of the spaces of the interior and the form of the exterior. This is visibly permanent everywhere throughout his structures, and pervades all his work. He offers a further contribution towards a pleasing effect by bringing the various modes of interior decoration into conformity with the construction.

Only by this method, I believe, will we arrive at a period of architectural expression in accordance with our age. And I am convinced that men like Henry Janeway Hardenbergh, in their more utilitarian speciality of apartment houses, office buildings and hotels—which are undoubtedly an improvement upon the old—will materially help to give us buildings of a completer and more harmonious order.

Sadakichi Hartmann.



The Pynchon House

That a house cannot be effective architecturally, no matter how good its architectural forms and composition may be, without an appropriate setting, or perhaps it would be more correct to say that the effectiveness of a house depends upon how it harmonizes with the site, is well illustrated by the two exterior views here shown of the Pynchon house at Greenwich, Conn. Here the architect had a double difficulty to contend with; the house must look appropriate both from the grounds, with their trees and level formal garden, and from the water, which shows the house set upon an eminence richly covered with grass, with a rustic sea wall and picturesque rocks at the water's edge. After due consideration, the architect has decided to make the land view the governing consideration. He has accordingly adopted English half-timbered architecture, giving way, however, to a picturesque treatment of rough stone on the ground floor, contrasted with a rather formal roof treatment. The scheme is agreeably managed, not forced, as might have been expected, from too great a contrast between the conflicting issues.

The plan at first glance presents a rambling mass composed of rectangles, ovals and octagons, ingeniously fitted together, but not carefully composed; on closer inspection, the different parts show a certain directness of purpose and a symmetry which we did not at first notice. The principal rooms group themselves very neatly around the corners of the central octagonal hall, and in such a way that a spectator standing in the center of the hall could command a view into all of them. The strongest criticism that might be made of the plan, from an artist's point of view, is the unexplained and rather indefinite ending of the masonry at the south porch and loggia on the rear; it is a gap in the organism of the plan that is inadequately filled up by the light posts of the loggia. On the exterior this is noticeable on the first floor only; the light woodwork of the upper floor bridges over the interval in a perfectly agreeable way. The service wing is effectively isolated from the main mass, and is treated in brick on the first floor to distinguish it from the main part of the house. It is in convenient communication with the dining-room, yet the servant answering the door bell must pass through the dining-room, which would seem undesirable in a house of this size. Another noticeable feature of the plan is the number of fireplaces; there is one in every room, making an interesting point in the interior decoration, as well as providing additional comfort to the occupants during inclement seasons. The chimneys count well in the general silhouette, which would perhaps be a little uninteresting without them. The view from the water shows the stable, which, though not very near it, has the admirable quality of seeming to belong to the house.

The central feature of the plan, the main hall, is carried up as the dominant mass of the composition, and is flanked on the garden front on right and left respectively by the reception room and the den in octagonal towers of equal height, but not of equal size, a difference which would appear irrational. One cannot help but feel also that the two little dormers over the main porch would have been more effective if they had been either coupled or placed farther apart. From the water the house presents the central mass with the dining-room next the servants' wing on the right, and the living room on the left projecting out at right angles to each other. The south porch forms an interesting feature, as well as a fine view point, and is valuable as a spot for cool summer breezes.

The entrance and staircase are treated in a light and graceful Colonial, quite different from what we should naturally expect from the exterior architecture,



THE GARDEN FRONT—PYNCHON HOUSE.
(Photo. A. Patzig.)

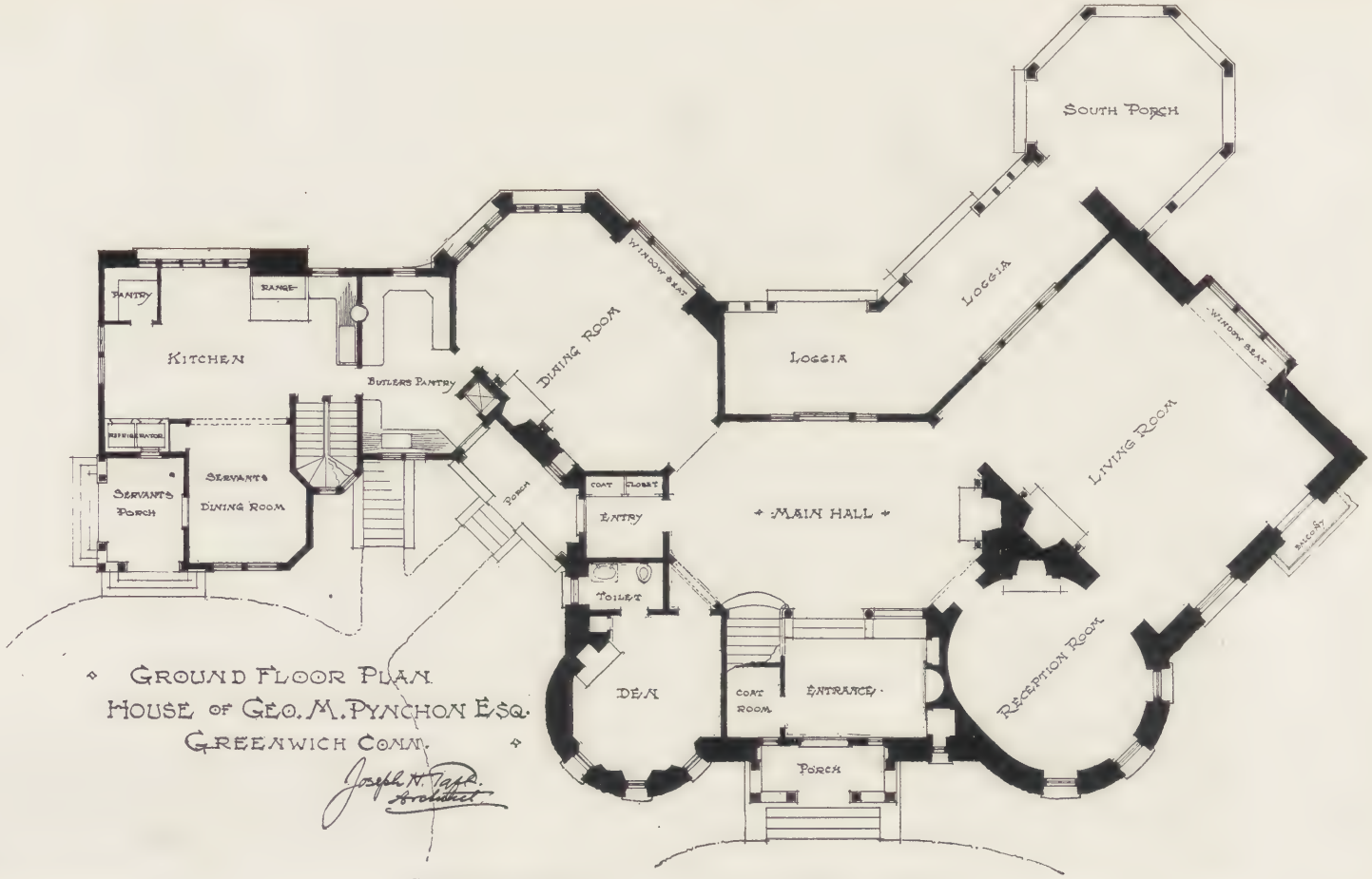
Joseph H. Taft, Architect.

Greenwich, Conn.



THE PYNCHON HOUSE FROM THE WATER.
(Photo. A. Patzig.)

Greenwich, Conn. Joseph H. Taft, Architect.



GROUND FLOOR PLAN OF THE PYNCHON HOUSE.

Greenwich, Conn.

Joseph H. Taft, Architect.



THE DINING ROOM—PYNCHON HOUSE.
(Photo. A. Patzig.)

Greenwich, Conn. Joseph H. Taft, Architect.



THE LIVING-HALL AND STAIRCASE—PYNCHON HOUSE.

Greenwich, Conn. (Photo. A. Patzig.) Joseph H. Taft, Architect.



A COSY LIBRARY—PYNCHON HOUSE.
(Photo. A. Patzig.)

Greenwich, Conn. Joseph H. Taft, Architect.

yet pleasing withal. The other interior views show the dining-room seen from the main hall and a rather cosy library; the only features of interest are the Colonial mantel and the paneled wainscot and a general simplicity of treatment.

On the whole, the house presents a fair example of the better class of suburban country homes, that are perhaps not brilliant architecturally, but distinctly American, embodying and expressing one of the most attractive phases of our national life. In solving its problems the architect does not need to make archaeological research; he may go to work with a perfectly open mind, with only his clients' wants and his own ability and taste to guide him to the result.

H. W. Frohne.



THE MORGAN LIBRARY AND ART MUSEUM.

36th Street, between Park and Madison Avenues, New York. McKim, Mead & White, Architects.



GENERAL VIEW—THE MORGAN LIBRARY AND ART MUSEUM.
36th Street, between Park and Madison Avenues, New York. McKim, Mead & White, Architects.



ENTRANCE LOGGIA—THE MORGAN LIBRARY AND ART MUSEUM.
36th Street, between Park and Madison Avenues, New York. McKim, Mead & White, Architects.



A NEARER VIEW OF LOGGIA, SHOWING LIONS AND VAULTED CEILING.
THE MORGAN LIBRARY AND ART MUSEUM.
36th Street, between Park and Madison Avenues, New York. McKim, Mead & White, Architects.



EAST WING—THE MORGAN LIBRARY AND ART MUSEUM.

36th Street, between Park and Madison Avenues, New York. McKim, Mead & White, Architects.



THE BRONZE ENTRANCE DOORS—THE MORGAN LIBRARY AND ART MUSEUM.
36th Street, between Park and Madison Avenues, New York. McKim, Mead & White, Architects.



ADDITION TO THE WINDSOR HOTEL.

H. J. Hardenbergh, Architect.

Montreal, Canada.

NOTES & COMMENTS

THE CALIFORNIA BUNGALOW

The more one becomes familiar with the buildings which have been erected in California of late years, the more one comes to appreciate the architectural value for its own purpose of the California bungalow. It is not too much to say that these bungalows are on the whole the best type of cheap frame house which has been erected in large numbers in this country since the old New England farmhouse went out of fashion. It is, as a rule, a long, low, one or two-story building, with a conspicuous roof, overhanging eaves and an inclosed porch. It fits snugly on the ground, it is generally well scaled with the surrounding shrubbery and trees, and its lines and the distribution of its openings are for the most part agreeable to the eye. The outer shell is usually covered either with shingles of the same size as those used in the East or with the larger shingles which Californians call "shakes"; but the redwood shingles and shakes used on the coast have a pleasanter and warmer coloring than cedar shingles, whether stained or not. Sometimes clap-boarding is used, and often with considerable success; the wide spacing of the clap-boards which one sees and likes on the old California ranch houses has been frequently transferred to the modern bungalows. There is nothing either affected or insincere about these little houses. They are neither consciously artistic nor consciously rustic. They are the simple and unconscious expression of the needs of their owners, and as such they can be credited with the best kind of architectural propriety.

Nothing, indeed, could be more flimsy than their method of construction. Their owners rarely indulge in the luxury of a foundation, and when a foundation is provided the stones are as often as not laid directly upon the grass. Generally, however, it is the sills, and not the stones, which are placed with mathematical precision on the turf, and throughout the structure the timbers are made as light as possible for a one or two-story building. Higher than two stories they do not soar. Whether or not a bungalow is plastered on the inside will depend upon the purpose for which the particular house is used. If it is situated in a suburb and is the permanent residence of its owner, it will generally be plastered; whereas, if it is situated in the country and is only occasionally occupied, a sheathing of redwood is usually considered sufficient. On the whole, these little houses often look light enough to be blown away and fragile enough to be demolished by a few stout blows of a club; but it must be remembered that such flimsy methods of construction have the practical merit of being very cheap. A California bungalow will cost anywhere from a few hundred to a few thousand dollars, and there is no economic reason why any California family, save those who are actually poverty-stricken, should not be able to own some kind of good-looking little "shack."

The cheapness of these houses is, of course, the direct result of their flimsiness of construction, and both are conditioned on the mildness and for the greater part of the year the dryness of the California climate. In the East even the cheapest house, except when it is occupied only for a couple of months in the summer time, requires a cellar and a comparatively substantial foundation, and as this foundation is one of the chief sources of expense, the tendency is to make it cover as small an area as possible and to build over it a comparatively high, square box of a house. The necessity also of providing a roof with a slope sharp enough to shed the snow readily tends to make our cheaper Eastern and Middle Western house a stiff, angular little building, which is rather perched upon the site than fitted tightly to it. One sees plenty of such houses in California, too, but they are not typical. When foundations and cellars are not indispensable, it is as cheap to build a low as it is to build a high house, and such houses in the dry California climate will have at least as long a life as the more substantially constructed houses in the East. It is customary also in California to dispense with much of the interior finish which in other parts of the country is considered necessary to the adornment of the house even of a mechanic. If the California bungalow is plastered, the millwork which is added is of the simplest

character, and generally follows the straight lines of the Mission furniture; while, if the house is not plastered, still cheaper and even better results are frequently obtained by the use of redwood sheathing. In short, the Californian has the advantage over the residents of many other parts of the country, both of happier climatic conditions and of a less sophisticated architectural tradition.

With San Francisco and some of the other cities in mind, it may sound extravagant to say that Californians have any advantage of any kind in the way of an architectural tradition. Assuredly, the old wooden dwelling in San Francisco was the worst type of residence ever built in large numbers in any city in the world. It possessed, we believe, every known and conceivable architectural demerit, and the city in which these sinful disorders were committed can never be completely reformed save by a sort of architectural vigilance committee. But it must be remembered that the economic conditions which work in favor of country houses that are cheap and good have tended to produce city houses which are cheap and bad. California is only beginning to reach a condition of economic stability which prompts its inhabitants to undertake serious architectural and building enterprises. Under the rapidly fluctuating industrial conditions which prevailed for a longer time and to a greater degree in California than anywhere else in the country, the inhabitants of a large city like San Francisco were disadvantageously situated, compared to their neighbors in the country. Urban life was under such circumstances more than usually artificial. Life in the country was the real thing. Californians undoubtedly enjoy country life more thoroughly, more simply and more continuously than do the inhabitants of any other State in the American Union, and it is not strange, consequently, that their country houses unconsciously perpetuated some of the better elements in the traditional California method of building country houses.

For, of course, California started on its architectural career with a comparatively good tradition of domestic design. And by this good tradition we do not, of course, mean the forms which were embodied in the old Missions, which, for the most part, are not adapted to dwellings at all. We mean, in general, the tradition embodied in the old adobe buildings, with their long, low, pleasant lines, their overhanging eaves, their inclosed porches and their restful expanses of plastered wall. It was this sort of house which the early Californian constructed, and the tradition that this is a good kind of house to build has fortunately never been stifled. The early American rancher would not, of course, use anything so expensive as plaster as long as lumber was cheap, but he usually followed the lines of the earlier California house, and his successor has continued to do much the same until the present day. Sometimes, indeed, one comes across the houses of richer ranchers, whose owners have been able to afford something architecturally striking, and who have consequently succeeded only in getting the same tedious, restless sort of frame house to which we are accustomed in the East; but fortunately such cases are rare. The Californian, when left to himself, does not know any better than to want something which happens to be good.

It is only recently that Californians have been building country houses for pleasure as well as for use. These pleasure houses, when they are expensive and designed by the better architects, do not differ essentially in their good and bad traits from the houses which are being erected under similar conditions elsewhere in the country. But the little bungalows of which we are speaking are rarely designed by architects at all. They are too inexpensive for that. They are the expression of what the ordinary Californian seems instinctively to like in the way of a house, and they are the sort of thing that the ordinary California country carpenter knows how to build. They are not the result of architectural instruction and selective taste; they are the result of a popular tradition which has not yet become sophisticated and which is aided by certain fortunate economic traditions. That Californians are building such a house in such a way is, we believe, a fortunate thing for them, because it means that these little bungalows are a genuine expression of popular and wholesome habits of country life and habits of country building, and the architects who design more costly and pretentious buildings, should do their best to reinforce rather than to destroy this tradition and practice.

A CONCRETE BUILDING

We present herewith the illustration of a building composed wholly of concrete, which is one of the most complete examples of this form of construction which has yet been erected. Cast cement stone has been used on the exterior, reinforced concrete for the interior columns, beams, stairways, floors and roof, and hollow concrete blocks for the partitions. It was built by



THE CONCRETE BUILDING OF THE ILLINOIS STEEL COMPANY.
Chicago, Ill.

the Illinois Steel Co. as an office building, and the basis material throughout has been universal Portland cement. It is impossible to imagine a more substantial form of construction than the one used in this building. There is every reason to suppose that it will last as long as the old Roman walls (provided, of course, the cement is equally good in quality), while at the same time this result has been obtained with a much smaller expenditure of material and labor. There can be no doubt that during the next generation this and similar forms of cement construction will become very popular, because a builder probably can, under all ordinary conditions, obtain this way an extraordinarily good result for his money. The difficulties which the advocates of concrete will have to overcome concern rather the architecture of these buildings than their construction. Concrete has so many good special qualities of its own that the designer of a concrete building should not try to produce effects which can be more perfectly obtained in stone; he should rather use forms expressive of the more plastic and fluid nature of his material. American architects are becoming very much more idiomatic in the use of terra cotta than they used to be, and they must learn to design buildings in concrete which are intended to look as little as possible like stone instead of as much as possible like stone.

THE POTTER COLLECTION OF BRONZES

There is on exhibition at the Gorham Manufacturing Co.'s Fifth avenue show rooms a collection of bronzes entitled "The Soul of Alaska," by Mr. Louis Potter, a young American artist, who lived for some time among the Thlinket Indians. Mr. Potter has portrayed in a series of eighteen subjects the character and life of these people, who still cling strongly to their native traditions. The collection is especially interesting as marking a new departure in art.

It would seem a very commendable work, even apart from its artistic value, to pre-

serve for future generations a faithful record of the manners and customs of a people who must ultimately share the fate of other Indian tribes whose homes happened to be more in the path of civilization than theirs.

The Gorham company has got up an interesting booklet, giving a short history of the Thlinket Indians, their manners, customs and mythology, and a short biographical sketch of the artist. Some of the more important subjects are reproduced with descriptive allusions. The collection is artistically interesting, and would amply repay a visit.

LOS ANGELES ELECTROLIERS

The accompanying cut shows one of the ornamental electric light posts with which the principal business streets of Los Angeles are now lighted, and which are making the city famous. Relatively, it is an exceedingly costly light, not only in construction, but, far more seriously, in maintenance. In this respect it is less available than the handsome standard put on the market by a Hartford firm and lately described here; but it is extremely effective, and in its use of the incandescent light and in its frequent repetition it restores to the street some of that night beauty that belonged to the old gas lamp and that the garish electric light has driven away. The iron is bronzed, giving to the standard a rich effect. It was introduced first on Broadway, mainly through the energy and enterprise of one man —Frederick W. Blanchard, now the Secretary of the Municipal Art Commission. He was himself a large taxpayer, and succeeded in inducing the other property owners on the street, for its full business length, to constitute themselves the Broadway Boulevard Improvement Association. The design was made by W. Underwood, a local architect, and the property owners paid for the standards precisely as they would pay for a new pavement or any other local improvement. After the success of the standards on Broadway, they were placed also on Spring street, a rival business thoroughfare next parallel. Now Main street, the second street beyond, is agitating the matter, and a number of men of large interests there have proposed the adoption of a distinct electrolier of their own that shall be in Mission style—heavy, squared supports, with cross-beams, from which the arcs shall be suspended like Mission bells. As Main and Spring streets finally unite, there has been opposition, on the ground of lack of harmony. This might have been more vigorously asserted, one would think, on the grounds of total inappropriateness and of already an overdoing of the "Mission style" for all kinds of incongruous purposes.



THE NEWEST THING IN SKY-SCRAPERS

Some of the new sky-scrapers which have been recently projected in New York contain not only a comparatively novel idea, but also a considerable architectural promise. At least two large corporations, viz.: the Singer Sewing Machine Co. and the Metropolitan Life Insurance Co., propose to build exceptionally tall towers on parts of plots, the whole of which will be covered by office buildings of lower but still respectable height. It will, we believe, be appreciated at once that this innovation, while difficult of realization because of the necessarily large dimensions of the site of such a building, offers, nevertheless, certain manifest advantages, both architectural and practical; and it is worth while considering with some care just what these advantages may be.

In the first place, such a plan would have the great merit of securing to the offices situated in the tower a perpetual supply of excellent light. In the case of an ordinary skyscraper such a supply of light is, as is well known, frequently threatened. When the building is situated on a corner, the offices which front upon the two streets are usually well enough lighted, unless the street is very narrow and the buildings on the opposite sides of the streets are also very tall. But the offices which front on the two sides of the building which do not give upon the street are exposed, so far as their supply of light is concerned, to the possibility of all sorts of deductions, and these deductions are liable to be all the more serious when the building fronts upon only one street. Such

dangers were not so very conspicuous and pressing as long as buildings eighteen or more stories high were comparatively rare; but when they became as numerous as they are in the financial district in New York it frequently happened that the owners of existing skyscrapers were obliged to purchase at a large expense property adjoining their buildings in order to secure for their tenants a sufficient amount of light and air. At the time when such measures had to be taken it was freely predicted that the builders of skyscrapers were defeating their own purposes, and that thereafter the erection of such tall buildings would become economically undesirable. Such predictions have, however, been wholly falsified by the event. The buildings erected on expensive real estate, at least in New York, have a manifest tendency to become taller than ever, and the only difference which the new conditions make is that the owners of such buildings prepare in advance for a sufficiently large supply of sufficiently good light. The innovation mentioned above is one of the expedients which have been adopted partly for the purpose of securing this result. A tower twenty-five or thirty stories high, which is surrounded either by the open street or by a lower structure owned by the same company need not fear either the accidents of contiguous building or the intentionally malevolent plans of an abutting property owner. It has really reached the region of free and perpetual light, and the erection of many such towers would merely provide the inhabitants of these towers with good company in the upper air. Moreover, it is possible that the plan of such a building might work out very well. The tower would have to be supplied with a separate entrance hall and with express elevators which would not stop at any of the lower floors; while the offices situated on these lower floors could be served by the local elevators, which would be reached from a separate entrance.

The architectural possibilities of a skyscraper with a tower are equally obvious, and even more conspicuous. The tower would, of course, be a striking and a spectacular feature, the design of which in itself would offer a tempting opportunity, and in making such a design the architect would be emancipated from limitations which hamper him very much in the erection of ordinary skyscrapers. It has become, indeed, customary to give these buildings more or less the appearance of towers, but they are towers only on one, or, at most, two sides. It is considered the economical and respectable thing to pretend that a twenty-story building, no matter how conspicuous it may be, is to be seen only on the sides which face the streets. The side and rear walls, which, in point of fact, may be as conspicuous as the street fronts, are left wholly undesigned, except that occasionally the bricks are laid so as to form a pattern, and the consequence is that the skyscraper becomes architecturally a mutilated thing. But in the case of these towers no pretence is possible that the rear and side walls will not be seen. They must be designed as if they had no baser parts; as if they were to be seen on every side and from every point of view. They must be designed—that is, as towers have always been designed—and it remains to be seen what American architects will make out of the problem. The design will have to be such as both to make the most of its towering dimensions and to harmonize with the appearance of those parts of the building which do not aspire to the upper air; but this complication of the problem, while it increases the difficulties, also improves the opportunity offered to the architect for obtaining a really great success.

We have called these towers architectural and practical innovations, and so they essentially are; but, of course, they have not been without certain precedents. The most obvious and conspicuous precedents are the towers of the Auditorium, in Chicago, or that of the Produce Exchange, in New York, while even the tower of the Madison Square Garden, in New York, cannot be wholly denied a similar dignity. Nevertheless, in both of these cases the relation of the tower to the building with which it is associated is so different from the relation of a twenty-five-story tower to a twelve-story building that we are justified in calling the proposed towers (comparatively) new things. The tower of the Metropolitan Life Insurance Company will, indeed, present much the same sort of problem as the Auditorium tower.

The New York structure and its proposed consummation will be higher by several stories than its analogue in Chicago, but the scales of the two towers in relation to the two buildings will have some things in common. In the case, however, of the new Singer Building the relation between the height of the proposed tower and the dimensions of the whole building, with its proposed extension, is wholly different. It suggests the relation which the tower of the Times Building bears to the whole structure of which it forms a part, rather than any similar architectural relation with which the writer is acquainted; but even this precedent cannot be pushed very far. The precedent

which has just been mentioned is sufficiently close, however, to justify one additional comment. The objections which may be taken to the design of the Times Building do not concern the appearance of the tower itself. That tower is admirably effective from any point of view along Seventh avenue or Broadway south of Forty-second street—from any point of view, that is, which enables one to see the tower as an isolated thing. When, however, this tower is seen in its relation to the rest of the building, its effect is by no means so good, and it looks as if the architect of the new Singer Building would have some difficulty in obtaining a much better relation between the mass of his building and the height of the tower. The general form which one would like to see these buildings take is that of a pyramid, and in case an architect had a whole block at his disposal it is possible that he might, with this general form in mind, achieve a beautiful and successful relation between his tower and the mass of his building. But such a design would involve obvious difficulties in the plan, which cannot be discussed in this connection. It is sufficient for the present to point out that the plan of skyscrapers under the conditions which are coming to prevail in New York is assuming certain new phases, and that these recent developments should offer the architect certain problems which are charged both with difficulties and opportunities.

EXHIBITION BY THE WASHINGTON ARCHITECTURAL CLUB

The Washington Architectural Club held its sixth annual exhibition in the atrium of the Corcoran Gallery of Art from March 17 to April 2. It included designs for such notable public works as the United States Senate and House business buildings, which are being erected to the north and south of the Capitol, after plans made under the advisement of Carrére & Hastings; the New York and Baltimore custom houses, standing, respectively, to the credit of Cass Gilbert and Hornblower & Marshall; and of postoffices in Los Angeles and Fresno, Cal., constructed under the supervision of Mr. James Knox Taylor; but it placed chief emphasis on Washington's domestic architecture. Thirty-one pages of its catalogue were given over to reproductions of notable residences built within the past few years, and though the representation was, in comparison to the field, small, it was sufficiently well chosen to be regarded as typical and significant. Such interesting examples as the Patterson house, on Dupont Circle, designed by McKim, Mead & White; the Larz Anderson residence, on Massachusetts avenue, the work of Little & Brown, and the Townsend mansion, remodeled by Carrére & Hastings. were given, and the more modest were groups of works by the leading local architects were also represented. Washington is fast becoming the residence city of America, and in the line of domestic works its local architects have made their largest contribution. The layout of the Federal City, combining the gridiron and the radial street systems, has lent itself kindly to innovations; its building lots are irregular in shape and size and its building sites commonly unconventional. There is still space and to spare, and though in certain sections land is high, it is not, even to the moderately wealthy, prohibitive in price. Then, too, Washington conserves to itself both urban and suburban features; it is at one and the same time city and country. Drifting nonchalantly from one to the other, the boundary line is never positively fixed. But, furthermore, the personnel of its residents calls forth, if it does not require, variety in the design of its homes. Being a national center, its citizens have been drawn from the world at large, and have come from every section of the United States, as well as from abroad, bringing with them alien ideals. These have been grafted, as it were, upon the good old Colonial style so well interpreted by Thornton, Latrobe and Hoban in the early days of the Republic—and have brought forth a fruitage which is both original and worthy. Messrs. Marsh and Peter have accomplished much in their revival of the Colonial style in its archaeological simplicity and purity, and in their readaptation of it to the requirements of the time; Wyeth and Cresson, it may be noted, have made and carried to a satisfactory conclusion designs for residences in accordance with the tenets of the modern French school; while Wood, Donn and Deming are shown to have introduced felicitously the Mission style, and developed both the pictorial and livable factors; and Totten and Rogers have interpreted with pleasing effect the Italian Gothic. These are but a few of the firms represented, and merely a summary of their contributions, but their marked individuality indicates the diversity of the output and the character of their works the trend of the whole. Individually, the houses represent not only their architects, but their owners. Collectively, they stand for the city, and for future possibilities along these lines. L. M.

Paint Progress

The conscientious architect owes it to himself no less than to his patrons that he should understand the subject of paint at least superficially. To go to the bottom of the subject is scarcely possible, since technical experts as yet agree on very few points connected with it. They are practically agreed, however, in condemning precisely the practice still adhered to by the majority of architects. What this practice is everyone who is familiar with current specifications understands: two or three coats of lead and oil tinted to the desired color, the actual preparation of the paint being left largely to the discretion of the contracting painter.

Now the long series of exhaustive experiments conducted by the Pennsylvania Railroad, under the supervision of Dr. Dudley, have proved as conclusively as any fact can be proved, that pure pigments of the basic type do not make satisfactory paint; while Mr. Job, Chief Chemist of the Reading Railway, has also clearly demonstrated the fact that fine grinding of pigments and intimate incorporation of the various ingredients of a paint determine to a large degree its durability.

These two controlling factors—fine grinding and intimate union—are precisely the two conditions necessarily wanting in a hand-mixed paint. The only form of paint in which they are preeminent is a properly made ready-mixed paint.

On the face of the matter, no one would deny that this is the only logical form of paint. Given the same formula, there is no intelligent user of paint that would not prefer to leave the entire process of selecting, grinding and mixing of components to be done, under proper supervision, by a well equipped paint factory than to run the risk of accidental or intentional adulteration and necessarily imperfect combination in the paint shop. It resolves itself, then, into a question of the materials used in either case.

But, it has been pointed out, materials used in ordinary practice for contract work are not by any means the best available. While lead is a very useful ingredient in certain types of paint, it is not the only desirable ingredient. Both technology and paint manufacturing progress have left this antiquated practice far behind, except in architectural specifications.

Few large railway companies, agricultural implement makers or structural steel builders of the present day in any case tolerate a straight mixture of lead and oil in their work. Such specifications, where white or a tint is required, uniformly prescribe the addition of zinc oxide or other white pigment and some inert material to the white base.

The manufacturers of ready mixed paints have followed far more closely than either the average painter or the average architect the progress of technical development in these lines, and while it is true that by no means all ready mixed paints reach or are intended to reach the desired standard, yet, as a matter of fact, the average prepared paint put out by a reputable manufacturer, if fairly handled by the painter, will afford more permanent decoration and protection at a lower cost than the routine shop-mixed lead and oil.

H. B. G.



GRAND ENTRANCE HALL, PALAST HOTEL.

Berlin, Germany.

VOL. XIX. No. 6. JUNE, 1906. WHOLE No. 93.

THE ARCHITECTURAL RECORD

CONTENTS

PAGE

Designing a Great Mercantile Plant—Illustrated.. 403
NIMMONS AND FELLOWS

School and Practice Designing 413
RUSSELL STURGIS

Gargoyles, Old and New—Illustrated..... 419
CHARLES DE KAY

The Promised City of San Francisco—Illustrated 425
HERBERT CROLY

Indianapolis Court House and Post Office—Illust.. 437
H. W. FROHNE

Roman Art—Part I—Illustrated..... 443
JEAN SCHOPFER

Buffalo Houses—Illustrated 459
GEORGE CARY, Architect

A Type of Original American Architecture—Illust.. 467
VERE O. WALLINGFORD

Notes and Comments—Illustrated 471
The New Bank of California—Ventilation—A Jacobean Office Building—Landscape Gardening in California—The Majestic Building—Free Architectural Schools.

Technical Department—
A New Aid in the Specification Room..... 477

C. W. SWEET, Publisher R. W. REINHOLD, Business Mgr.
H. W. DESMOND, Editor H. D. CROLY, Associate Editor

Subscription (Yearly), $3.00 **Published Monthly**

TWENTY-FIVE CENTS

THE ARCHITECTURAL RECORD CO.
NEW YORK

TWENTY-FIVE CENTS

OFFICE OF PUBLICATION: Nos. 14 and 16 VESEY STREET, NEW YORK CITY.
WESTERN OFFICE: 511 MONADNOCK BLDC., CHICACO, ILL.



HUMBOLDT SAVINGS BANK BUILDING.
San Francisco, Cal. Meyer & O'Brien, Architects.
Now in course of construction.

The
Architectural Record

Vol. XIX. JUNE, 1906. No. 6.

Designing a Great Mercantile Plant

Commerce as symbolized by sculptors and painters has usually been represented by some beautiful figure intended to inspire the admiration of the people.

The modern philosophers and critics, however, are busy with their pens deploring the present tendency to an "all-absorbing commercialism," as if nothing were left either good or honorable in the pursuits of commerce. The strenuous business life, the graft and grind of our large cities, are subjects so well worn by recent writers that it seems as though the beautiful figure of the artist's commerce were no longer appropriate to the subject.

Yet in spite of the modern philosopher and critic, there is much to inspire the architect to his best efforts in the problem of a great commercial building. First of all, the architect knows that the successful merchant has for the very basic principle of his business, fair dealing with the customer. He also knows that the great masses of the people are indebted to the merchant for their abundant supply of the necessities of life, and also for all those agencies of education and culture which have been placed within their easy reach.

The merchant in his dealings with his own people, the employees, is now doing more for them than ever was done before. The short working hours, the high scale of wages, the perfect arrangement and equipment of the buildings for the health, comfort and happiness of the employees, and the means provided even for their moral and mental development, are surely evidences of good faith in the aim of the merchant to improve the condition of his own working people.

The modern commercial building is no longer merely a warehouse with shelves to hold goods; it is a great deal more, and in some instances presents all the problems of a small city.

Of the large, successful commercial houses, there are few which have grown to such a great size in so short a time as Sears, Roebuck & Company.

The firm was established ten years ago, and now sells sixty million dollars' worth of goods a year.

Their new buildings occupy a good part of a site one-half mile long by seven hundred feet wide, with a total floor area of fifty acres, and cost, together with the mechanical equipment, five million six hundred thousand dollars.

The arrangement of their buildings and parts of their buildings, so as to secure the most economical handling of goods over these large areas, the provision for the best and most rapid shipping facilities, the care of employees, security from fire and injury in panics, were all questions given a great deal of consideration in designing the buildings.

In the consideration of this problem, it naturally divides itself into three groups of buildings, classified in accordance with the three divisions of the business:

First: All orders are received by reason of advertising matter sent out in the form of a catalogue; hence, the Advertising and Printing Departments.

Second: The life of the business is dependent on an elaborate system of files

Copyright, 1906, by "The Architectural Record Company." All rights reserved.
Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879.

and indexes, giving the name, address, and purchases of every customer, revised to date. As the loss of these files would result in a suspension of the business, this group occupies a building of the highest type of fireproof construction: The Administration Building. In this building are also housed all executive and administrative departments whose access to these records is desirable.

Third: The Merchandise Department, in which are stored all of the goods, implements and products imaginable, or to be desired. These are divided into some fifty-six different departments, each in charge of a manager and numerous assistants. In this Merchandise Building and its Annexes are received, stored and shipped goods in value amounting to more than sixty million dollars a year.

Independent of these divisions is the Power Plant and mechanical equipment. This mechanical installation was in charge of Martin C. Schwab, Consulting Engineer of Baltimore, and deserves a separate descriptive article. Power is developed here for heat, light, elevators, pneumatic tubes, refrigerators, ventilation, and for the numerous mechanical contrivances devised to facilitate the transaction of business.

The capacity of the boilers is six thousand horse-power.

E. C. & R. M. Shankland were the engineers engaged in the structural engineering.

Thompson, Starrett Co., of New York, were the builders.

The following table gives the areas, floor space, and cubic contents, showing the relative size and importance of the buildings composing this group, and the block plan shows the final arrangement of the buildings:

An idea of the uses and design of the buildings can possibly be given best with a description of how orders for goods are filled.

All goods are sold through the medium of a large catalogue, which is sent to the prospective customer on application. The orders for goods are sent to the firm by mail; hence the name "Mail Order House." The mail, amounting to about two carloads per day, is delivered to the building called "The Administration Building," which is a fireproof building 450 feet long and over 140 feet wide. In this building are located the executive offices and the clerical force of about 2,000 people in all.

After the mail is opened, the orders are carefully recorded, and tickets made out for the goods, a separate ticket being made out for each department from which goods are to be taken. A single order may call for from one to twenty different articles. These tickets are sent next to the routing department, which determines whether the goods are to be shipped by mail, express or freight, and the kind of shipment is indicated on the tickets as well as the roads over which it is to be shipped. The tickets are then sent to the distribution department, from whence they are dispatched by pneumatic tubes to the various departments in the large Merchandise Building across the street.

The Merchandise Building is 1,100 feet long by 340 feet wide, half of which has nine stories and a basement. The great problem about the planning of the Merchandise Building was to adapt a plan best suited for handling goods over this immense area, and at the same time one which would have the best light at the second story, as the second story is a continuous expanse of floor over the entire ground area. This is the great

Building.	Floors.	Ground area.	Single fl. area.	Total fl. area.	Total cu. con.
Merchandise	9	136,704	B to 2 134,240	402.720	4,832,640
			3 to 9 115,840	810,880	9,730,560
			tower 2,116	8,464	84,640
Annex "A"	4	79,458	76,230	304,920	3,354,120
Annex "B"	4	52,896	50,600	202,400	2,226,400
Administration	3	46,620	43,440	130,320	1,824,480
Power house	2	29,274	27,830	55,660	1,558,480
Printing	4	21,282	20,080	80,320	966,840
Total		366,234	352,420	1,995,684	24,578,160



1. COURT OF THE MERCHANDISE BUILDING, WHERE THE SHIPPING IS DONE.
2. FREIGHT RAILROAD DEPOT, BETWEEN THE ANNEXES OF THE MERCHANDISE BUILDING.

Sears, Roebuck & Co.'s Buildings.

Chicago, Ill. Nimmons & Fellows, Architects.

shipping room floor where all goods are collected, packed and shipped; the railroad tracks being elevated, enter the building at this level.

The plan adopted for the main part of the building was a hollow square with a court in the center, 230 feet by 80 feet. To the rear of the main part of this building are arranged two wings, called "Annexes," which are 60 feet apart, and between which is located the large railroad depot, where it is expected to handle as high as two hundred freight cars per day by means of electric engines. With the tickets or orders then delivered to the departments of this building from the Administration Building, by way of pneumatic tubes, the process of collecting the goods to fill each order goes on. The smaller goods are all located above the second floor, and the heavy goods on the second floor, or below that. Each department receives the orders or tickets, and all those above the second floor collect them in baskets, which are immediately taken by light trucks to spiral chutes located conveniently to all departments. These chutes are of steel about eight feet in diameter, with three spiral planes in each one, and three openings to each chute in each story. The baskets containing the goods are put in one of these three openings, according to whether they go by freight, express or mail. This process is very rapid, and goods are disposed of about as fast as if they were thrown out of the window. The centrifugal force in the chute causes friction against the sides, so as to regulate the speed of the heavy and light baskets in descending to the second story; even glass ware will go down without breakage.

When the baskets arrive at the bottom of the chutes, they slide out on horizontal traveling conveyors, which run all around four sides of the large court in the center of the building, and convey goods to the mail, express or freight shipping departments, there being a separate spiral plane for mail, express or freight in each chute, which is connected at the bottom with the corresponding traveling conveyor. The goods are thereby delivered automatically to the proper shipping room, as designated by the routing department on the tickets. The mail shipping room is comparatively small in area, being about twelve thousand square feet, the express about twenty-five thousand, and the freight about two hundred thousand square feet.

As the baskets containing the goods are received on a large receiving table in each shipping room from the conveyors, they are taken to rows of shelves divided into sections, where a separate basket is reserved for each order. As soon as a basket has received the last article to complete the order, the goods are checked, boxed and marked ready for shipment. In the large freight department the shelves for temporarily holding goods, while orders are being completed, are arranged around the court, so that the packing, checking and marking of packages all take place in the court under excellent overhead light; empty boxes are brought in overhead at the center of the court by a traveling conveyor. In the operation of packing the freight goods, they are worked backwards through the court during the operation, so that when completed they are near the head of the large freight depot.

The heavy goods, too large to be boxed, are assembled in freight pits, according to their destination, and moved from these directly into cars.

The goods stored below the second story of the Annex Buildings are carried upward by means of inclined traveling conveyors. In addition to the spiral chutes and conveyors, large freight elevators are provided so that every department has access to at least one freight elevator.

There are two sets of railway switches installed, one for incoming freight on the south side of the building and one at the first floor level for the outgoing freight, which is handled in the large freight depot on the second floor, referred to above. By this process there is no conflict of travel in receiving and shipping, and all goods are shipped within twenty-four hours after the



1. THE PRINTERY.
2. THE INDEX DEPARTMENT, IN THE ADMINISTRATION BUILDING.

Sears, Roebuck & Co.'s Buildings.

Chicago, Ill. Nimmons & Fellows, Architects.

orders are received. Some days the orders number as high as forty thousand, calling for one to twenty articles in each order.

The Merchandise Building, excepting the tower, is of mill construction, with floors six inches thick of solid wood. The amount of lumber usually put in floor joist is added to the thickness of the ordinary mill flooring, making the floors strong enough to span from one girder to the other without the need of joists. This gives additional head room and a smooth ceiling in each story, also a better opportunity for sprinkler heads to put out a fire. Fire walls are built so as to divide the entire building into sections of twelve thousand feet. In the walls surrounding the court on the second floor, large openings provided with double steel shutters were accepted by the Insurance Underwriters, so that it is possible to have an almost uninterrupted space for the shipping room floor. Stairways, elevators, heating and ventilating ducts, dust chutes and wire shafts are all surrounded by brick walls with steel doors.

The tower, fifty feet square and two hundred and forty feet high, is built entirely of fireproof construction, and contains the sprinkler tanks and house tanks for water supply for the entire plant. The total capacity of the tanks is 200,000 gallons. At first the Insurance Underwriters advised placing separate tanks on the roofs of the various sections and buildings throughout the plant, but were finally prevailed upon to allow the placing of all water supply together in the tower, provided it was made strictly fireproof. The water mains from the tanks are laid in the tunnels under the buildings.

The insurance rate finally fixed for the buildings and stock is the lowest ever given to a risk of this character.

The Printing Building located east of the Administration Building is devoted entirely to the printing of the catalogues. There are 2,000,000 catalogues printed and sent to the customers annually.

Nineteen large cylinder presses are employed to do the work. The binding and mailing of the catalogues is also done in this building.

After nearly a year spent in preliminary study and in the consideration of various sites with regard to the shipping facilities, space for additional buildings, extension of business and accessibility for employees, the present site was adopted. To make this site available for use, it was necessary to close a street to get space sufficient for the Merchandise Department. This gave a solid space 340 feet wide by 1,250 feet long.

The nature of the business is such that everything must be handled through one shipping room or endless complication results. Consequently, from numerous schemes the present scheme developed, giving two general divisions, the Merchandise Building and Annexes.

In the Merchandise Building is placed all of the small merchandise which goes through the shipping room. In the Annexes are housed the large or bulky articles which are shipped separately, or goods such as groceries, which are shipped in original packages.

The future elevation of all railroad tracks to do away with grade crossings was considered. This made it necessary to provide for present usage at grade level and for an elevation of thirteen feet in the near future. To solve this the receiving room was placed on present grade and the shipping room on second floor on future elevated grade. This scheme provides for the receiving of all goods on the first floor, whence they are trucked to the elevators located in the outside walls of the building, and thence to the different stock departments. The shelves of these departments are so arranged that the goods are received at the outside and are delivered toward the court in shipping where they go to the shipping room in the second floor by means of spiral conveyors. Thus the incoming merchandise never crosses or interrupts the progress of that going out.

After the general arrangement of the buildings was determined and the type of construction was fixed, it was discovered that the most important feature—the foundations—presented a large and



THE MAIN ENTRANCE TO THE MERCHANDISE BUILDING.

Sears, Roebuck & Co.'s Buildings.

Chicago, Ill. Nimmons & Fellows, Architects.



ENTRANCE TO THE ADMINISTRATION BUILDING.
Sears, Roebuck & Co.'s Buildings.
Chicago, Ill. Nimmons & Fellows, Architects.

puzzling problem. Numerous borings were made, and it was found that the nature of the soil was such that spread foundations were impractical. Again, the datum line was so far below the basement level that wood piles could not be considered. Concrete piles proved impractical on account of the difficulty of driving them in the clay. Finally it was decided to use concrete caissons, deep enough to reach a hard strata of clay and belled out at the bottom to sufficiently spread the load.

In the structure of these buildings the architects strove to obtain the highest type of efficiency consistent with absolute economy of space and money. The composition was made subservient to structural requirements and such structural features developed to provide a pleasing composition. Space well lighted, ventilated and with the most approved arrangements for the storage of goods and the comfort of employees was the requirement. This with perfect communication between departments and the best systems for handling merchandise of all kinds, and with ample protection against risk by fire.

The floors are constructed of five by eight yellow pine flooring, laid with splines and spanning fourteen feet between girders, without joists. The top of each floor is protected by saturated roofing felt and with a maple floor; these floors being so arranged that water in case of fire will be drained to scuppers in the outside wall or pass down the stairs and elevator shafts. Wire glass and metal frames are used in all exposed windows, including the entire court and skylight.

All openings in fire walls are protected by double fire doors, including vent ducts, dust and wire shafts and heating ducts; in fact everything possible has been done to ensure the safety of the building and comfort of the employees.

The site of the building is in the midst of a residence district; therefore, the appearance of the buildings would have a great effect upon the neighboring property.

Sears, Roebuck & Company are as much interested as is anyone in maintaining the character of the neighborhood. It will ultimately become the place of residence of their employees, and they are keenly alive to the effect of pleasant surroundings upon the moral and physical well-being of the people who work for them. They decided that within reasonable limits they would be willing to spend money to make the buildings appear attractive. A rich, brown paving brick was selected for all exterior brickwork, and terra cotta was decided to be the most suitable and durable material for trimmings.

Given the material at hand for construction and the structural features for decoration, the brick and terra cotta architecture of Tuscany naturally suggested itself as appropriate with such restrained use of brick patterns and terra cotta decoration as would be consistent. Furthermore, the use of terra cotta decoration suggested the addition of color for backgrounds to accent such decoration. Consequently, the lunettes and frieze of the Merchandise Tower are of glazed blue terra cotta; also the backgrounds of the book marks which decorate the Printing Building and the discs of the Power House are of white and blue glazed terra cotta.

The frieze of the Administration Building is developed but not copied from the scheme of marble inlay of San Miniato at Florence, and blue is introduced in the backgrounds to bring out the geometric *motif* of the design. Decorated mouldings were avoided on account of expense and the ornamentation was so concentrated as to obtain the greatest value possible. The sills and lintels were necessarily of terra cotta, used as a fireproof covering for the steel, and these are made the chief features in the decoration; consequently, the horizontal lines are emphasized. The only place where an elaborate treatment in composition was permitted were the top of the tower and its entrance and the main entrance and vestibule of the Administration Building. When one considers that some seventy-five hundred employees pass through these entrances many times each day, the money spent to make them attractive is well invested.

Nimmons and Fellows.



One of the few opportunities for architectural embellishment.

TOWER OF THE MERCHANDISE BUILDING,
Sears, Roebuck & Co.'s Buildings.
Chicago, Ill.
Nimmons & Fellows, Architects.

School and Practice Designing

Let us, in the first place, decide upon the terms which we should use as expressing what seem to be two quite opposed methods of designing. There is, first, the method now commonly in use throughout the United States, namely, the following very closely of certain types which are embodied in Italian buildings of the sixteenth and seventeenth centuries, and are laid down in Italian, French and English books of different periods. This method has for its primal and originating force a close study of Roman colonnades, Roman proportions, Roman ornamentation: the word Roman being used here for that period of the Mediterranean world which corresponds with the widest rule of the Roman Emperors, say, from 30 B. C. to 250 A. D. Still, though based upon the architecture of that great period, the architecture affected by the designers whose work we are describing here is not at all strictly antique in character. The artists of the Italian Risorgimento, 1420-1500, while they declared it to be their duty and their glory to follow the classical Roman example, found it advisable to follow that example much less closely in practice. This breaking away from their accepted model was largely caused by the lingering feeling for Mediaeval freedom in design; by their own individual power as designers; and by the different character, the smaller scale, the thinner walls of the fifteenth century monuments. The builders of Italian palazzi and churches chose for their models the colossal thermae, basilicas, theatres, and palace halls of the second century and the years following, then in much more nearly perfect condition than we see them now, and their types were therefore found in buildings inconceivably more grandiose and more costly than they could hope to achieve. So that they were compelled to work in a lighter and more familiar way; but indeed the Italian artist of the time had a quite unlimited power of graceful decorative design, and it would have been in vain to have sought to check this free artistic expression of that by a closer copying.

Our contemporaries, however, the men of the last twenty years of the nineteenth century and of our own lustrum, are not even clear as to these differences. Many of us heard a member of one of our great architectural societies state in a speech, and dealing with a building of his own, that "he knew the details were good Renaissance because they were taken right from the theatre of Marcellus"—which is an ancient Roman building of the prime. The English, and American writers following them, spoke of any modern building as being "Renaissance," using the word as an adjective. The English Renaissance was supposed to include St. Paul's and Somerset House; the Renaissance in France covered the *Ecole Militaire,* built in 1751, and even the Panthéon, 20 years later, at the very door of the Revolution.

At all events, the above is an attempted description of a certain method of designing, a method based upon authority, although the "authority" is of doubtful origin in many cases. A man who builds Roman colonnades may very well be uncertain whether he is following the temple of Mars Ultor, restated for him by photographs from the ruin, or whether he is following plates in some folio on his office shelves, and purporting to represent that great work of Augustus. The man who is designing, in a sense, Greek anthemions and Ionic capitals, may well be uncertain whether they are the plates of Stuart & Revett which he is following, or a memory helped by a photograph of some part of the Erechtheum. The English are inclined to follow Palladio, who died in 1580. The French are more inclined to study the works of Vignola, who died in 1573. To a certain extent the architects of our own time are influenced by

much more trustworthy representations of Greco-Roman buildings. To a very great extent they are swayed by their own memories of the years spent in the school of art in which they were taught, and by the *projets*—the school-competition designs which they made in those sunny days of youth. The Frenchmen who came to Chicago in 1893 exclaimed with one voice, when they saw the plaster façades surrounding the Court of Honor, that those were the same old *projets d'Ecole*—and so they were.

The school designs were not limited to mere fronts, mere scene painting of a grandiose kind; the whole of a public building was planned as if done under the influence of a study in competition for a medal. It was indeed a matter of recognized and accepted critical comparison that the premiated designs in the school competition were models of planning and of combined study worthy of the regard of hardworked practitioners. Those designs were published in folio volumes, and appear in catalogues of architectural books.

That, then, is one method of designing, and we are in need of a name for it: but let us consider first the other method of design. This consists in summoning up from the resources of the memory such architectural forms as seem best fitted to the larger task, about to be imposed upon the designer. "Such architectural forms"—that is not merely the stone laid across the top of a window, but the architectural thing which we call a lintel; not merely the ring of wedge-shaped stones which makes a curved top to that window, but an arch of a certain recognized form; not merely a beam laid across from wall to wall, but a joist or girder with a definite architectural treatment expressive of its leading part in the construction of a floor; not merely a projecting mass like a wing-wall intended to stiffen the main enclosing wall where it needs stiffening, but a buttress of Gothic type, or else a salient pier—a pilaster-buttress, as the modern architectural term is. The constructor has only the safety of his work to consider: the architectural artist has to think in terms of architecture as well, and to use them in a new composition. This is the free method of designing, of course; and yet the freedom is not so great that the artist is not tied to the necessity of choosing certain recognized elements. It is no part of this free designing that he should make columns with shafts of oval section, that he should employ flat arches alternating with pointed arches over openings of the same width, that he should imitate stone buildings in iron or wooden buildings in stone, that he should affect Oriental forms while building in a Western way. Still, on the whole, the designer, according to this second method, is free. If he has a great public library to build, it will not enter very seriously into his scheme that a great and very costly colonnade should form the whole principal front of it, using up a space of 6,000 square feet of the precious city plot, and giving nothing in return except an out-of-door shelter which ten people a month may use in the hot weather; or might use if police regulations would allow. It is not so that he will go at his task. He will think, rather, of how he may provide a spacious interior, first, for the stack-rooms, where the books are ranged systematically, in order; second, for the reading rooms, where tables are set in good clear daylight, the windows carefully spaced and distributed to afford the daylight in question; thirdly, the distributing rooms, corridors, vestibules, stairways and the rest, all in their right places and in such communication with the divisions of the library as may be found best. He will enjoy the interior effects resulting naturally from these features of his plan, considering them as the primal needs of the building and as the most important opportunities for his artistic design; and the "treatment" they are found to need—the slight forcing of the plan for artistic reasons, will be a fresh delight. It is true, also, that he will be thinking all the while of what his exterior will be like; but he will recognize that exterior as a dependent part of the work—a result of the interior. And the result he obtains will be, then, less grandiose but more intelligible; far

less costly in proportion to the result, much more expressive of the purpose of the building, and incomparably more original. There will be, for the reading rooms and delivery rooms, large window openings, letting in abundant daylight, and those may be spanned by arches, because it is in that way that large openings had better be spanned; but whether those arches have the form of segments of a circle with the center dropped far below the abutment; or basket handle curves with three centers; or semicircular arches with perhaps the curve filled in with thin walling of a decorative description, with tympanums, in short, so that the arch itself may rise above the ceiling of the room which the window is to light; or pointed arches of two or four centers treated in the same way with filling in or not, as the case may be; all that will be decided in connection with the general design. Or, finally, he may decide upon lintels, supported by a shaft in the middle, or at two points in their length by two shafts —"midwall shafts," as the phrase is: and of that thought a grave and tranquil composition, with level cornices and low roofs, may be developed.

Then for the stack-room he will provide a series of long, narrow windows—mere vertical slits in the wall. They will appear in contrast with the height and solidity of the block and in contrast also with the great windows of the reading-rooms. And indeed, the appearance in a modern design of one of these modern requirements of peremptory nature—insisting upon its recognition—has proved to be the signal for some of "this free designing" in a building not otherwise marked with that character; see, else, the Washington Library of Congress and the unfinished N. Y. Library building.

So the designer, as he decides what form of window opening he will employ, decides also what the whole general style of his building will be—whether it will be high-roofed and with tall chimneys, if any; with dormer windows to light the space within the roof, and with such diversified outlines, both horizontal and vertical, as befits a picturesque composition; or whether the building shall be calm and grave, with strongly marked horizontal lines; a flat or nearly flat roof and the design of the building contained in its walls alone except as a projecting porch or entrance may modify the front.

To call the first of these methods the traditional one is to deny the use of that term to the second method; and yet the second method, the free method, may be traditional also. Have we not, inded, begun our statement of the case for the second method by limiting the choice of its employer to certain recognized types of form—certain arches, certain pillars, certain ways of handling a piece of construction?

Let us try the effect of the terms *school method* and *practice method* as descriptions of the two methods of design. The one is that which (for our sins) is mainly taught to the young architects of the period in their schools. They are taught in this way because no other way is so convenient. You are a professor in a school of architecture; you have to submit a problem to a class; you have to keep a record of the relative excellence of the students in that class; you have to award praise and blame, perhaps even prizes and penalties, to the students who undertake the problem in question. It will be very much easier for you to say, Let us design a pavilion by the water-side, not to exceed so many feet in dimension—much easier to say this than to give the requirements of a private man about to build a small country house, or of a church committee about to undertake a small village church. But the pavilion by the water-side runs inevitably to grandiose reminiscences of the splendid European monuments shown in the books, which are, of course, at the disposal of the designer, or which have been at his disposal. The different designs for it can be compared with relative ease. The accuracy, according to the accepted authority, of the Ionic or the Roman Doric colonnade, its accuracy in general proportions and in the larger and the smaller details according to the standard of this, that or the other recognized authority, is easy to

decide. The general excellence of proportion it is not difficult to appraise; the merit (from the school standard always) of these different pavilions by the waterside can be compared with such accuracy that the better and the not so good marks awarded to the different students can be quickly decided on without the fear of serious injustice. But if there were in question twenty different designs for a ten thousand dollar country house, the discrepancies between the different points of view would be vast; and there would be twenty different points of view. It would take a committee of professors to decide upon them aright; and those professors would have to be men of practice, in order to appraise the whole merit of each—in order to decide how far A. B. might excel in the fitting together of his rooms and halls—how far C. D. might be inferior to him in that, but far better in the way in which his exterior details were handled.

It is therefore not amiss to call the first described of the methods of design by the name school method, or School Designing. In like manner it may seem rather obvious why the term Practice Designing is used for that other method, which also is described above.

There is no reason, in the nature of things, why school designing should be almost entirely identified with the different neo-classic styles. It is merely the fashion of the day to try to design as the Italians of the seventeenth century designed, or perhaps as the strong men of France at a later time faced their problems. In England, fifty years ago, and at a later time than that, the fashion was altogether different, and so far as there were schools of architecture, there and then, they taught Gothic church architecture, almost to the exclusion of other styles. This is reflected in the English books of the day, of which there are many, devoted to the Mediaeval styles almost exclusively, and to the English styles in the main. In Munich, too, then assumed to be a great art centre, there was a strong Gothic feeling; and the classes at the Polytechnic School, so far as they led up to the study of architecture as a fine art, were Mediaeval in their general tendency. In France the classical feeling has always been very largely traditional in the best sense, for the strong artistic leaning in French Society has sufficed to make the changes of the Revolution less fatal to the continuous growth of art in the very country of the Revolution, than they have proved to be in other European lands. But the teaching of neo-classic art in France is a very different thing from that of the United States. Even the teaching of the art is not wholly in the direction of School Designing. There are some of the *ateliers,* or working studios connected with the Ecole des Beaux Arts in which a rather serious attempt is made to build up a wholly modern system of design; with a classical origin and under classical influence, indeed, but without a close adherence to classical forms.

On the other hand, if we were to substitute for our term, Practice Designing, some such term as designing in the Mediaeval spirit, we should belie and contradict the facts of history; for there can be no doubt that the people of Greco-Roman antiquity designed as freely as the people of the twelfth century after. The difficulty is, that we do not know how those Greco-Roman designers did their work, except in the huge public monuments where cost was disregarded, where splendor was the one thing required—splendor with a large and ample convenience. Little is known of dwellings, or of the public buildings of small towns. At Herculaneum we have the stuccoed brick columns and piers of the peristylar gardens, and in Pompeii we have houses almost complete up to their first tier of beams; in Rome, even, there are some private houses from which much may be learned, and some of these houses are of several stories each. But it remains true that from all our discoveries together we have no idea at all of the way in which a Roman of the first century would have looked at the problem of a street front; nor do we know how he would have treated a country house with many rooms, if smaller than those conceived by the great millionaires of

the metropolis, when building their villas at Tibur or at Tusculum or on the Bay of Naples. It does not help us much for our daily duty as architects to know the way in which an Imperial villa was distributed—its separate buildings scattered over much ground and mingled with the gardens. When we have a dwelling-house to build, whether it is to be of wood covered with shingles and fifty feet long, or of masonry and covering an acre of ground, in either case we are without knowledge, and without even the power of a close guess, how a later Greek or an earlier Roman would have looked at the question of its design. And, as for the street front, when Viollet-le-Duc was considering, about 1870, the subject of Human Habitation in all Ages, he was compelled (bold at drawing inferences as he was) to base his own design for a Roman five-story house and for a six-story house across the way, so closely upon what he had seen in different parts of modern Italy that the selection and combination of the details is a little laughable, although one accepts to the full the sincerity and the intelligent reasoning of that most dextrous of the restorers of the past.

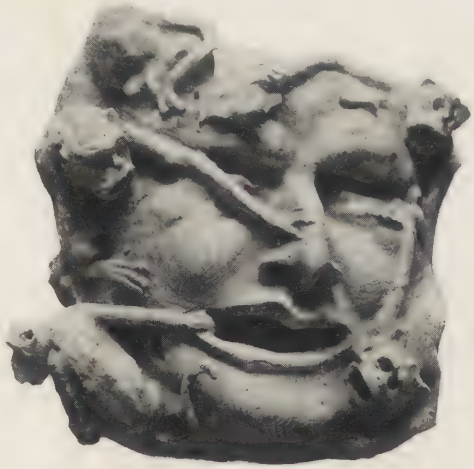
In short, we are always busy in drawing inferences as to Greek art from the temple and the propylaea, with slight or occasional thoughts of the porticos which we believe surrounded the market-places of Greek towns. For Roman art of the first three centuries A. D. we accept most heartily the indications as to plan and disposition given us by the ruined dwellings which have been unearthed; but the moment we try to rear an edifice upon such a plan we are led, in spite of our efforts to the contrary, to a rather close study of the grandiose and costly buildings of the great cities. Now, if we knew as little of the Mediaeval towns as we do of those of antiquity, there would be no obvious choice, and the student of reality in design would be as much left to himself and to his own too bold inferences in the one case as in the other. But as it happens, we have dwelling houses of the twelfth century, though few; of the thirteenth century; of the fourteenth century in considerable abundance, and in considerable variety; of the fifteenth century and later in plenty, one might almost say. We know quite well what the designer of the great Gothic period did with a house in town; we know how little it was really Gothic in style; how much it was a building of vertical walls and horizontal floors; the openings for doors and windows alone showing, nowadays, to the hasty observer, what the epoch of the building was. The small details, moulding and sculpture, and the way of superadding one part to another,—all that tells the story of the epoch to a more observing or a better informed looker-on; but, indeed, the house of the Middle Ages in Belgium, in Southern France, in Northern Italy, in Spain, and in Great Britain, is extremely well known. And here is the additional fact that our modern city house is the direct descendant of the Mediaeval burgher's house in a town of Northern Europe. The church, moreover, is Mediaeval entirely. We take churches as they grew up under the dispensation of Christianity in one or another district of the continent of Europe, and we alter them to suit our modern notions of design, but the church-plan and church-building is of Mediaeval provenience, all the time.

Now, the neo-classic wave of influence which passed over Northern Europe in the sixteenth century changed the aspect of the city house, though without changing its structure, and was coeval with the first appearance of the big, unfortified country mansion. Most of all in Italy was the new style used freely in the cities. And therefore it is that we may, if we choose, study neo-classic design in the streets of Italian cities, as far as they have not been ruined by very recent restoration and destruction; and also from the careful engravings made in the middle of the nineteenth century, and from photographs a little later in date, from buildings which have since become useless to us. The greater prosperity in the commercial sense of the Italy of our time is fast destroying the vestiges of fine old art; but still it remains true for a little while longer that the less modern-seeming towns

hold a little old art for our delight. We can study these fronts in Italy; but also with less confidence in the north, because in the busy and wealthy cities of northern Europe fine, early neo-classic buildings were rapidly destroyed to make room for larger and less refined structures, whereas the comparative poverty and neglect of the Italian towns down to perhaps 1870, left their lovely buildings of the Risorgimento unchanged except for partial ruin.

It would not, then, be accurate to speak of free, realistic, rational designing as being done in the Mediaeval manner—that would mislead. If the scholars in a modern school were bid to design in a mediaeval manner, they would go different ways, each according to his own proclivities. The student from Florence would have a very different notion of what the mediaeval manner was from that of the student of Scottish or of North German birth and education. And then, again, to use the term "mediaeval manner" would be to seem to forbid at once the use of the classical details and classical methods of planning or constructing, which would be extremely unwise. Why, it would even forbid the working by the modern man according to the examples set by the neo-Grec reformers of Paris in 1840 and thereabouts. It would forbid the study, with the enthusiastic admiration which it deserves, of the Library of St. Geneviève in Paris. That style, the neo-Grec, is not Greek in any sense of the word. It does not pretend to be Greek, and whoever fastened the name neo-Grec upon it might be accused of creating a wanton misnomer. But it is absolutely non-mediaeval; and it is absolutely realistic, with no principle of design except to follow the necessities of plan and structure, and to see what comes of it.

"To see what comes of it;" if you are conscientiously a realist and something of a designer by nature, that is not a bad way of studying a future building which is entrusted to your guidance. Nothing absurd will come of it, because you will know how to hold your details in hand and make them work together, avoiding the folly of some avowed "eclectic" schools, and realizing that an Ionic pilaster is not the way to finish, at top, a Gothic buttress. Nothing ugly will come of it, because you are assumed, by the conditions, to have some sense of massing and proportioning, some feeling for contrast and for repetition, some joy in monotony and some interest in variety. And if people are troubled because they cannot name your Chosen style, you will be pleased, and will answer that you are not an archaeologist when you design. *Russell Sturgis.*



GARGOYLE AT PRINCETON, N. J.
Gutzon Borglum, Sculptor.

Gargoyles Old and New

In his chronicle of the reign of bluff King Henry the Eighth the annalist Hall mentions a gorgeous but temporary structure on which were "gargylles of golde, fiersly faced, with spoutes running." It is not about such evanescent glittering baubles I wish to speak, but of the simple and often powerfully designed, the artistic yet somewhat barbarous gargoyle of stone, which reached its highest flight, produced its greatest effect on Gothic architecture, in keeping with the wealth of animal and bird forms, arabesques and foliations that is found therein, advancing from the simple serpent and dog to human figures or combinations of monsters and men.

Relatively unimportant compared with many other features of Gothic, the gargoyle has always appealed to popular fancy, and may be said to hold a more prominent place in the general idea of Gothic which presents itself to us when that style of architecture is mentioned than do the lancet window, the pointed arch or the flying buttress. And if one looks closer for a reason for its existence as a decorative feature in ecclesiastic and secular buildings there is an obvious cause for this. The gargoyle is a detail that can scarcely be overlooked owing to its position and the grotesque forms it has been made to assume.

The dragon as a demon of the storm and the water is common to Oriental mythology; the serpent heads that finish certain crosses in heraldry called gringoles afford another example of the mixture of myth and a later faith.

There is something fascinating in the appearance of a cathedral church during a rain storm when the whole building is set with little jets of water issuing from the jaws of dragons and wyverns, goblin birds and writhing cobolds, the falling streamlets shining out against the rain-darkened walls and roofs.

The number and variety of roofs on Gothic chuches of large extent and the need of draining even much smaller surfaces than are found on the actual roofs, are supposed to furnish the reason for the many spouts that end in gargoyles or have gargoyles associated with them as a decorative feature. The problem was to get rain and melting snow away from the large roofs and the small, sending the drainage of slopes in a fine curve from the wall or buttress-front beneath, into some larger gutter, or clear of the main building into the street, the latter serving in turn the purpose of a conduit to carry the water to the nearest ditch or river. The building itself was less apt to leak, its stonework was not channeled by the rainwater, its foundations ran less risk of being undermined. Rainfall accumulating quickly in such a moist climate as that of Western Europe added its force, assembled from wide and intricate expanses of roof, to the good work of cleansing the streets—a needful thing in the middle ages! As the Gothic developed, gargoyles increased with the greater care expended on decorations and the protection of the stonework.

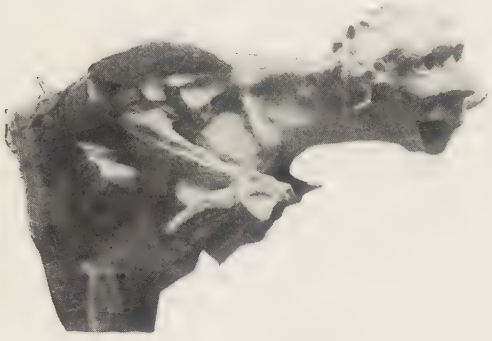
No wonder the architects of the twelfth and thirteenth centuries felt that adornment was required for the "lanceurs," the "canons," the spouts with which such a great structure as a cathedral church bristled. What is odd is the choice of subjects for gargoyles after the fashion, set apparently in Paris, Beauvais, Laon, etc., became general in the Seine valley.

But even today it is not necessary to speak of gargoyles in the past tense, for they are commonly introduced into the exteriors of modern churches and occasionally are still in demand for secular buildings. At Princeton University the new dormitory designed and presented by the class of '79 has been equipped with upwards of forty gargoyles, the work of Gutzon Borglum. It is true that modern construc-

tion for the relief of roofs from water, combined with modern drainage, no longer exacts the decorated waterspout as a working feature. They need be "practical" no longer, to borrow a word from the stage. But for three centuries the gargoyle remained so fixed a feature of Gothic architecture that a decent feeling for consistency demands its presence in modern examples, just as the hat retains its band and the coat its lapels, though band and lapel are no longer working parts. The once useful feature has become an integral part and holds its own as a decoration.

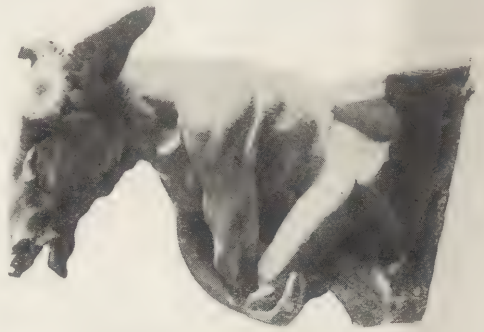
Among the Borglum gargoyles, some of which appear in the illustrations, one may see the harpy and griffon, the simple dragon and the ape, the lamprey eel and chameleon, the gnome and hunchback, wolf and bear, the panther and cat, the grotesque human mask and the demon's jowl. There are faces peeping through floral work, and visages drawn all awry by the claws of imps, as if tic douloureux or the toothache were personified.

In his Notre Dame de Paris Victor Hugo likens the building of mediæval churches to geological formations.



GARGOYLE AT PRINCETON, N. J.
Designed by Gutzon Borglum, Sculptor.

Every epochal wave of time adds its alluvium; every race leaves a fresh layer on the monument, every individual brings his store. It would be difficult to say when the gargoyle first made its appearance; perhaps in opposition to the view of Viollet-le-Duc it was coincident with elaborate stone structures and in a less striking form belonged to the Romanesque before it blossomed in the Gothic. The Germans are wont to say "from the rain right under the spout" as an equivalent of our "from the frying pan into the fire." Old towns like Goslar, Hildesheim, Rothenburg, still show open rivulets down the middle of the streets during rainy weather; the spouts are still distributing the drainage of picturesque roofs, as of old, beyond the



GARGOYLE AT PRINCETON, N. J.
Designed by Gutzon Borglum, Sculptor.

Bürgersteig, the burgher's stepping stone or primitive sidewalk, into the roadway. These survivals explain the origin of the spouts for rainwater rather than the gargoyle. But if we could see the streets of mediæval towns exactly as they were before the age of Gothic churches, perhaps we should also detect here and there grotesque animals on the spouts carved of wood on such dwellings as ambitious burghers loved to ornament otherwise with carvings and pictures.

Nowhere more clearly than in the gargoyles of Gothic churches does one perceive that a wooden prototype has been repeated in stone. It is plain that a log bored or channeled lengthwise to form a waterspout has been finished in some eccentric shape—a chimera, a harpy, a nondescript beast—and when required for a structure all in stone has been transferred to that material Sometimes it is found that metal has been used where that does no harm to the artistic look of the structure.

At the same time it is worth noting that we have no certain records of gargoyles until after the Crusades, and that fact leads us to the Orient for the fash-

ion in gargoyles that meets us in the thirteenth century. Greek and Roman architecture are not without examples. But it is in the extreme Orient that we find exact parallels, in Ceylon, rainy Burmah and Siam, as many be seen by the illustrations of gargoyles recently discovered on old temple sites and published for the first time this year.

There is something that appeals to



GARGOYLE AT PRINCETON, N. J.
Designed by Gutzon Borglum, Sculptor.

the sense of fitness in these grotesques in Gothic and Buddhistic architecture when seen in connection with the rest of the sculpture. Taken by themselves, divorced from their subordinate positions, they strike us a trifle coarse with the grotesquery of their distorted masks and muzzles. But seen in connection with the figures of divine beings and saints as they stand on their pedestals under their canopies, the whole combining to make a façade such as that of Rouen or Chartres appear like an intricate field of lacework, the gargoyles form a contrast at once pleasing and in harmony with good sense; they are minor parts of a great intricate whole, and should not be thought of separate from the other sculpture.

False views of art often spring from this root of ignorance as to the relation that objects now isolated once bore to their original surroundings. Examples of this in everyday life near to hand are the Chinese and Japanese curios which have been so widely appreciated by our art collectors. Ever since the advent of "chinoiseries" to Europe the finest qualities of Chinese and Japanese art works have been misunderstood, because European interiors do not suit them; this lack of harmony continues to the present day.

But Europe and America have been as grievously at fault in classic things, more particularly with regard to Greek sculpture, which has been imitated and subjected to surroundings for which the Greek prototypes were never intended. We still mount caryatids where they are not merely anachronisms, but have no function to perform of supporting a superincumbent mass or embellishing an upright member. We hang carved wreaths and apply masks where these have no meaning. We imitate the bad taste of former generations by representing an arch which has lost its keystone, and we place elaborate groups of carved marble in rooms that lack the spaciousness, the open light from the sky, the marble architecture and floral surroundings that belong to them.

The gargoyle had its due place in Gothic churches in connection with the divine and human figures in sculpture and stained glass on the one hand and the floral and vegetal carvings on the other. These eccentric figures have their own part to play. They contribute to the sometimes heavy humor of Gothic art almost as much as certain faces



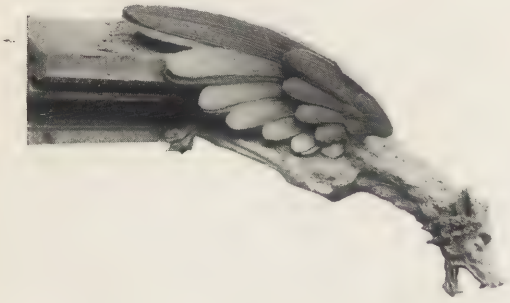
GARGOYLE AT PRINCETON, N. J.
Designed by Gutzon Borglum, Sculptor.

and figures tucked away in the leafage of capitals within the church or under the seats of the stalls of the choir. Rarely, if ever, is satire expended on them, for they are apt to be too remote for an effectual girding at the pomposity of priests and monks—those perennial taskmasters and purse-bearers whom the architects and sculptors of the

church edifices held very often in the deepest dis-esteem. They belong rather to the realm of the bestiary, the book of fables and to the domain of minor supernaturalism, a very real land of the imagination, peopled with forms belonging to old, half-forgotten, but not entirely extinct religions.

As the red-skinned Christians of Mexico were once found to have stuffed the inner part of the high altar at Puebla with their old idols, without the knowledge of their cruel civilisers, so did pagan Europeans slily introduce their discredited gods into the haunts of the new deities, enjoying the fun of getting the better of proud prelates who were ever ready to have them punished or even burned alive for devil worship. They also felt as did the submissive Mexican Indians that perhaps, after all, there might be some power left in the old demoralized gods, some uncanny virtue in their images, which it would be the part of wisdom to conciliate in case the saints were deaf, or otherwise too much engrossed to listen to their prayers. Cautious minds felt that the devil himself was too powerful a seigneur to exasperate.

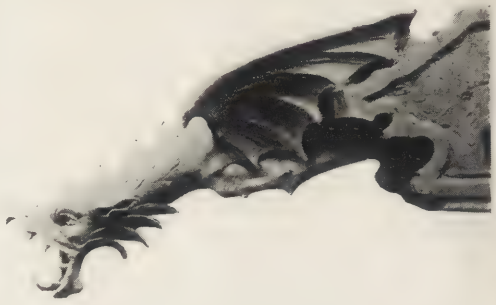
In various odd forms the primeval



COLLEGE OF THE CITY OF NEW YORK.
Geo. B. Post, Architect.
Perth Amboy Terra Cotta Co.

worship of birds and beasts and imaginary creatures compounded of human and animal parts adheres to humanity long after strict logic has pronounced them and any belief in their efficacy absurd. That is superstition in its old, crude meaning, including belief in warlocks, were-wolves, demoniac hunters, the evil eye.

In the ancient annals of Rouen we seem to touch the very beginning and genesis of the gargoyle in a strange creature called La Gargouille, which devasted the fair land of the Senones long before the term Normandy became the general appellation of the country thereabouts, a demon whose existence was celebrated if not demonstrated, by curious rites that betray a pagan origin.



COLLEGE OF THE CITY OF NEW YORK.
Geo. B. Post, Architect.
Perth Amboy Terra Cotta Co.

The Gargoyle of Rouen was a very astute monster, who showed a partiality for young, soft-fleshed virgins, which one would scarcely expect in a creature so coarse of skin and with so violent a breath. For such a creature, with such a gullet, a Saxon pirate tanned by African suns and pickled by the brine of the Atlantic would seem a more savory article of diet. One can conceive the Gargoyle enjoying a Roman legionary in full panoply of arms, cracking a Roman knight as you would a nut. But tender maids were his pet specialty, and Rouen found it necessary to give him one from time to time in order to protect their husbandmen, flocks and herds. The staple of his human diet, however, was a meal of such men and women convicted of crime as Rouen could best spare, so that it became a practise to devote to the Gargoyle prisoners incarcerated for one reason or another, despite the fact that by so doing the people were deprived of one of their chief sources of amusement, the decapitation, the quartering or the incineration of their fellow man.

It was under Clotaire II. when Christianity was making slow headway against paganism in France which



COLLEGE OF THE CITY OF NEW YORK.
Geo. B. Post, Architect.
Perth Amboy Terra Cotta Co.



COLLEGE OF THE CITY OF NEW YORK.
Geo. B. Post, Architect.
Perth Amboy Terra Cotta Co.

still held its own among the folk. A holy man from Rome had taken up his abode in a neglected fane of the Druids, had cleansed it of the foul goblins of the old faith, and begun to declaim against the sons of Belial. The time arrived for feeding the Gargoyle, and a deputation of the chief men was ready to take a noted criminal to the proper spot and leave him as a sacrifice. Saint Romanus perceived the opportunity offered him. "Let me take him to the Gargoyle" he exclaimed "and if I can exorcise the monster with bell and candle—you, on your part, must promise to accept baptism at my hands and build a temple here to the one true god."

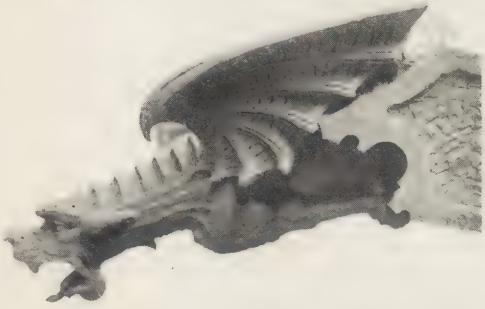
The men of Rouen had no great desire to enter the haunts of the Gargoyle. They reflected that a Christian missionary was no ordinary dish, and the Gargoyle might be mollified, if, in addition to the criminal, they offered him a succulent foreigner. With their tongues in their cheeks, and a reprehensible flickering of the left eyelid, they closed the contract with Saint Romanus and watched him and the fettered criminal disappear among the great beechwoods on the other side of the Seine.

What was their amazement to see Romanus and the criminal return leading the Gargoyle in captivity, bound by the stole of the saint. His fiery breath all gone, his long tail dragging piteously behind! Still terrible to look upon, the Gargoyle was a danger no longer. Fastening him to a stake in the same square on which, centuries later, the Maid of Orleans was done to death as a witch, the citizens heaped many dry faggots and bundles of straw such as they used for thatch about the monster and saw him reduced to cinders—all but his head and scaly neck, which remained incombustible, owing to the fiery breath that used to issue thence. It was from this part of the dread Gargoyle that wood carvers of later days took the design for the spouts, which are condemned to emit cold water as a perennial jeer and flout against the creature that seared men with his red-hot exhalations. It was thence, according to this veracious chronicle, that the gargoyle took its name.

Ever after, in remembrance of Saint Romanus and his prowess, the good citizens of Rouen have been in the habit of building a properly horrible dragon against Ascension day and parading him through the streets. He is known in the feminine as La Gargouille, notwithstanding the fact that such malefactors are always of the male sex; and they burn him on the public square with ceremony and great merriment, although not allowed to include human beings in the sport. The burning of human beings, it is true, did not die out, but it was done separately and on the most authenticated grounds of heresy or witchcraft.

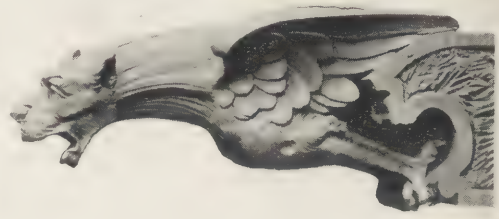
In this variant on the story of Saint George and the Dragon we have a confused remembrance of the early pagan methods of disposing of criminals among the Gauls. It was their practise

to make the burning of criminals a popular spectacle. Giants and dragons large enough to be the cages for several victims were constructed of osier, and these huge effigies were carried about in triumph and finally burned with their human, living contents on a consecrated spot. Some such monster of willow-work and straw, which devoured criminals and was not averse to an occasional virgin as a *bonne bouche,* may well have lain at the bottom of the legend. A saint from Rome put an end to the Gargoyle, which we must imagine as an osier image like the famous Tarasque of Tarascon. The criminal saved from certain death by the Saint gives the clew. The Gargoyle was a spectacular machine devoted to capital punishment, and symbolized some ancient god of fire.



COLLEGE OF THE CITY OF NEW YORK.
Geo. B. Post, Architect.
Perth Amboy Terra Cotta Co.

As such it takes its place among the goblins on the outer walls of Gothic cathedrals, degraded to base uses, but preserving a reminiscence of the old pagan days. The only parallel among the Greeks and Romans was the lion mask that decorated the roofs of temples or spouted water into the fishpond or bath. But that also can be traced back to superstitious origins, for the lion mask, like the mask of the Medusa and the head of the griffon, represented talismans to protect men from various ills. Pausanias mentions that Akroteros, a daimôn or genius belonging to the cortège of Bacchus, was remembered at Athens by a mask fixed in a wall. So we see that the same process was going on in classic times, the souvenirs of old rustic religions clinging to the temple walls as decorations rather than idols. Akroteros was doubtless some local form of Pan, the old god degraded to a satyr who haunted the hill-tops, who in course of time was taken up and gathered into the general worship of Bacchus.



COLLEGE OF THE CITY OF NEW YORK.
Geo. B. Post, Architect.
Perth Amboy Terra Cotta Co.

Gargoyles are an element in the love of nature shown by the sculptors and architects of Northern Europe during the middle ages, but they also reflect the supernatural side of nature worship which ran contrary to the ideas of Rome and Byzantium. In the long run the classicals prevailed, and the architecture which included and protected them, as a great forest includes and protects creatures of every kind, was stigmatised as barbarous and flouted by the word Gothic, and so had to disappear. That its force in the twentieth century is not entirely spent is clear; for religious and secular buildings are still designed on lines that are accepted as Gothic, though the rebellious, forceful spirit of the old builders no longer inspires them.

Charles de Kay.

The Promised City of San Francisco

Some months ago the Architectural Record contained a brief notice of the plan, wrought under the direction of Mr. D. H. Burnham, for the improvement of San Francisco. The notice was based upon the summaries of the report which had been published in the daily papers of San Francisco, and these were, of course, fragmentary and incomplete; but in the meantime the full text of the report of Mr. Burnham, accompanied by the drawings prepared by his subordinates, has been officially published. It is now possible to estimate in a much more satisfactory manner the meaning and nature of Mr. Burnham's plan; and there are many reasons why such an estimate should be of peculiar interest, not only to architects and to the residents of the Pacific coast, but to all Americans whose patriotism contains any infusion of national aesthetic aspiration. Our object, consequently, in calling attention to the report more at length is not primarily that of describing and discussing the details of the plan. These details are of great interest and importance, but they might be meaningless except to people who are thoroughly familiar with the topography of San Francisco. The object of this article rather is to bring out some of the reasons why the plan is of more than local and technical interest, so that its future realization demands of patriotic Americans at least a portion of the same solicitude, with which they will follow the fate of the McKim-Burnham plan for the improvement of our National Capital at Washington.

In the first place, let us consider for a moment what part San Francisco is likely to play, economically and socially, in the history of our country. There can be no doubt that it is to be the metropolitan city of the whole division of the United States west of the Rocky Mountains. There will, of course, be other large and flourishing cities, such as Los Angeles on the south and Seattle on the north; but San Francisco will dominate the other cities of the Pacific coast in much the same way as New York dominates the other cities of the Atlantic coast. It will be the center of the prevailing financial and industrial organization, the city to which well-to-do people will go in order to make their purchases and take their pleasures, and the abiding-place of the men, who will give form and direction to the intellectual life of that part of the country. As this whole section increases in population and wealth, San Francisco will benefit thereby in an altogther peculiar way. Its local industries and commerce will be of prime importance; but at the same time it will exact a tribute from the treasure of all kinds, which the people of the Far West will accumulate.

San Francisco has never received the recognition it deserves as an incipient metropolis, largely because it has not as yet, according to American standards, become very impressive in bulk. So far as the number of its population is concerned, it has ranked only with such cities as Buffalo and Cleveland; and Americans are slow to realize that a city may be smaller than Baltimore or St. Louis and yet at the same time be qualitatively of greater importance in the national industrial and social organization. It should be added, also, that for many years San Francisco did not grow rapidly enough to hold her own among cities of similar grade. From 1880 until 1896 it was, for reasons into which we need not enter, sunk into a condition of comparative industrial and commercial lethargy. Since 1897, however, its growth has been extremely rapid. Its population, according to the census of 1900, was 342,000; and the claim is now made that almost 450,000 people are resident within its limits. To these there should be added the 100,000 or more inhabitants of neighborhoods immediately tributary. If the existing rate of growth is continued, for the next fifteen or twenty

years, San Francisco will be surpassed in bulk only by such cities as New York, Chicago and Philadelphia. And there are good reasons for anticipating that its rate of growth will hereafter be greater rather than less. The whole section of the country, of which it is the commercial and industrial centre, is beginning a much more substantial process of economic growth. Its economic life was, until recently, characterized chiefly by the extravagant waste of enormous crude natural resources. It lived on the products of poorly worked mines and badly cultivated soils. Its population exploited these opportunities in the spirit of the gambler, and was making no sufficient provision for the future. The development of the fruit industry was the first step towards rearing a more permanent and productive economic structure. Recently this has been followed by the introduction into mining of more economic methods of extracting the metals, and by the beginning of manufacturing industries on a much larger scale. Petroleum is being used for fuel instead of coal, and extensive plans are being executed for transmitting electric power great distances from its sources in the water-falls of the Sierras. At the same time it looks as if agriculture, also, was assuming more wholesome and promising characteristics. The whole system of soil-exhaustion by the constant repetition of one crop is being succeeded by diversified crops, smaller farm areas and more careful methods of cultivation and irrigation. In this and in many other ways the economic condition of California and the adjoining states is more promising than ever before. There is no reason why this division of the country should not support ten thousand or more people, where it now supports a thousand; and whatever is done hereafter in the direction of developing these natural resources along permanently fruitful lines will of course benefit such a city as San Francisco even more than it will benefit the country. The typical life of California and the Far West has been hitherto the life in the mines or on the ranges and fields; but a more complex industrial condition and a higher economic organization means, of course, that urban life will become relatively of greater importance.

We have dwelt upon the economic future of San Francisco, because, unless its future becomes in this respect more brilliant than its past, it will never gain the respect or excite the admiration of the practical American people. But if it once can be granted San Francisco may grow hereafter in much the same way that Chicago has grown in the past, the time is assuredly coming when it will exact the same kind of admiring respect from the rest of the country as Chicago does. The diversified character of its economic life alone will place it in a different class from such cities as Cleveland, Pittsburgh and St. Louis. At the end of the next thirty years several million people may well be living around the shores of San Francisco Bay, and these people will constitute one of the three most important industrial and commercial centres in the United States.

But if in one respect San Francisco will have the advantage over such cities as Pittsburgh and Cleveland, it will in another respect have the advantage over such a city as Chicago. Non-residents go to Chicago on business or to visit friends; but they will go to San Francisco just as they go to New York in order to amuse themselves. It is the one large city in the country, outside of New York, which is clearly stamped as a national pleasure resort. The inhabitants of the whole Pacific region will, of course, inevitably visit San Francisco when they wish to enjoy the diversions of city life, and to a smaller extent their example will be followed by the inhabitants of the middle West and of the East. Throughout the whole of the winter months the climate of San Francisco constitutes a potent attraction for all the residents of less favored regions, and as railway transit improves this attraction will become all the more powerful. It is true that San Francisco shares this advantage with such places as Los Angeles and Santa Barbara, and that these southern cities receive a larger share of the time and attention of tourists. But it is also true that San Francisco not

only is essentially far more interesting than its southern neighbors, but has the opportunity of making its superiority real to the majority of intelligent people. Merely as a health resort, the city has some limitations. Nevertheless it combines a mild, invigorating and equable climate with certain other advantages, which appeal more to the intelligence and imagination. Its site is, we believe, the noblest and most beautiful of any large city in the world (Constantinople alone possibly excepted). It is the American gateway to the Orient and the South Seas, and gains thereby a certain fascination. It is the city in which Americanized foreigners have proved to be most at home, and have lost least of their native idiom. These foreigners have profoundly influenced the amusements of the city, and have contributed to making it a most entertaining place in which to live. An easy, natural and spontaneous gayety characterizes the people. The theatres are numerous and good; the restaurants both inexpensive and acceptable; and the shops peculiarly attractive to the intelligent seeker after curiosities and bargains. Finally, it is the city, in and around which the people and things of manifest intellectual interest on the Pacific Coast are to be found; and this distinction, while it may not increase the railway travel very much at present, will in the end constitute one of San Francisco's peculiar sources of attraction. As soon as eastern people realize that California is not merely a health resort, but a state in which the better characteristics of the American spirit is coming to receive a particularly free and fragrant expression, then they may flock to San Francisco in much larger numbers than they do at present, and in a much more appreciative state of mind.

We trust by this time we have said enough to convince people, who are not already interested in San Francisco, that they have reason to be interested, and that any plan which seeks to make the city aesthetically more worthy of its higher destiny should receive the benefit of their sympathetic solicitude. But, of course, the people, who are much the most vitally concerned are the San Franciscans themselves. If that city becomes adequate to its opportunities, if it ever really fulfills the extraordinary promise of its existing condition, it will be because its leading citizens understand what the opportunity is, and do not shrink from the sacrifices which its fulfilment demands. No doubt the bulk of the work necessary to give San Francisco the metropolitan and intellectual distinction, at which we have hinted, must be performed by individuals, acting in obedience to innocent and unconscious personal motives; but one essential task must be achieved by the community acting with the fullest and most definite determination to make San Francisco a great city. It is the community alone which can make the plan of the city—its physical constitution and appearance—adequate at once to its extraordinary situation, the manifest industrial needs of its future, and to its (possibly) higher destiny.

This brings us to a more specific consideration of the Burnham report. It is not an accident that San Francisco should be the first city after the national capital to have wrought for itself a new and comprehensive plan. Such a plan was demanded by two conditions—first, by the unique opportunity which the site affords, and, second, by the execrable manner in which, up to the present time, this site has been mutilated. The extent and the apparent perversity of that mutilation is almost beyond belief, but it is not beyond explanation. San Francisco grew, of course, with phenomenal rapidity during the first few years after 1849, and its incompetent government had to improvise a street plan without possessing the intelligence or the time to study the matter carefully. The only conception of a city which the good American pioneers brought with them, was that of an indefinite multiplication of rectangular blocks, but it so happened that this rectangular lay-out, which is inconvenient and ugly enough on a piece of flat land, is when applied to a hilly site still more inconvenient and inappropriate. It was the misfortune of San Francisco that the very characteristics



SAN FRANCISCO AS IT IS.

Report of D. H. Burnham.



THE PROMISED SAN FRANCISCO. Report of D. H. Burnham.

of its site which give it such rare distinction and beauty, were bound to be most defiled by a rigid system of rectangular streets. Her sin is worse than that of other American cities only because her opportunities were so much greater; and if the city had grown during its earlier years more slowly and under more normal conditions, it is possible that she would have adapted the lay-out of the streets to the grades of the hills, and so enabled her architects to put the peculiarities of her site to better use. The cows, it is said, laid out old Boston; and the pity is that they were not consulted about the lay-out of San Francisco. They would certainly have proved to be better surveyors than the pioneers; and even to-day the speculators, who are exploiting new districts in the vicinity of San Francisco, may well consider whether the disposition of a cow to go around a hill does not contain more practical wisdom than the common preference for a straight street at any price. At the very moment when the good citizens of San Francisco are acclaiming the Burnham report, they are permitting the new additions to the South to be laid out in the same bad old way. The truth is, of course, that the development of San Francisco, like that of other American cities, has been left to that generally ignorant and obnoxious individual, the real estate speculator, whose selfish interests demand lots and blocks of uniform size and with rectangular corners. He is as rampant to-day as he ever was; and San Francisco, like certain other American cities, will never enter into possession of her magnificent physical heritage until the interest of the whole community in a flexible and convenient street lay-out is asserted vigorously against those of the local real estate owners. The object of the Burnham report is, of course, primarily to introduce as much coherence and flexibility as possible into the old street system of San Francisco; and it will require for its realization on the part of the better citizens of San Francisco an amount of vigilance and hard work, proportioned to the past triumphs and the present influence of that arch enemy of the well-ordered city —the real estate speculator and "boomer."

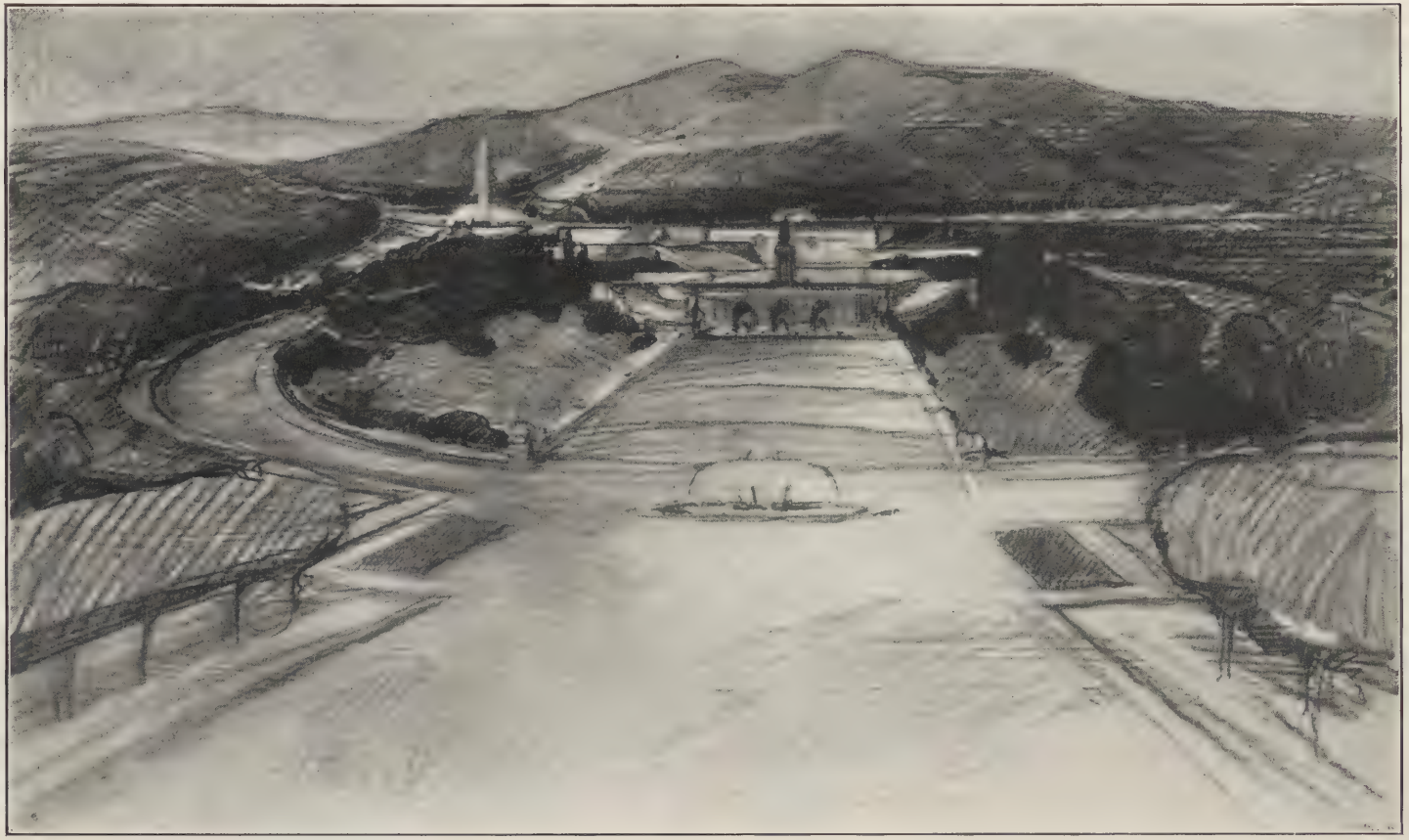
It may be inferred, consequently, that the Burnham report had to meet a peculiarly difficult situation. The new plan is not concerned like the plan for the improvement of Washington with a capital city, whose whole economic life is dominated by state activities. San Francisco is not even the capital of California. It is an industrial and commercial centre, which has been built under peculiar economic conditions; and any re-planning of the city must take into account these fundamental, industrial and commercial pursuits. At the same time, it so happens that this commercial city occupies an incomparably noble and beautiful site, and that its public spirited citizens are anxious that the city should receive and adopt a lay-out which shall take full advantage of the hills and the bay on which it is built. Moreover, in laying out this new plan, Mr. Burnham has had to keep in mind the limits of possible re-arrangement. In order to take *full* advantage, either for aesthetic or practical purposes, of the topography of San Francisco it would be necessary ruthlessly to destroy all that part of San Francisco which has been built upon the steep hills, bordering the bay on the side of the Golden Gate. Streets running at right angles to one another have been imposed on these hills, quite regardless of grade—quite regardless even of the fact that it would be almost impossible subsequently to drive a horse up and down the street. Yet it was impracticable entirely to obliterate this absurd lay-out. All that Mr. Burnham could do was to remove in some measure the practical inconveniences of such a plan, to reclaim certain peculiarly prominent summits such as Telegraph Hill, and finally to turn his chief attention to the improvement of that part of the city which was in the line of future growth, and which could be developed in relation to still unspoiled aesthetic opportunities offered by the topography of the city.

Mr. Burnham's plan may, then, be briefly summarized as follows: He proposes to deal with the inconvenience of

the existing rectangular city plan by encircling the city with a boulevard. All streets will lead finally to this boulevard, and access may be had from any one of them to another remote street by following the boulevard until the street sought for opens into it. But in addition to this boulevard, whose utility will be diminished, because it cannot well be made only the outer one of a concentric system, a number of new diagonal streets are proposed, which will serve the double purpose of facilitating communication and of uniting the older sections of the city with the proposed new San Francisco. This new city is grouped around a civic centre, which is situated on the most important existing street in the city, Market St., at its intersection with Van Ness Ave., a few blocks beyond the present City Hall. Business is pushing out along this street at the present time, and in selecting this location for the core of his new city Mr. Burnham has effected a useful union between his ideal plan and the actual business expansion of the city. The proposed new civic centre will, of course, be the site of a number of the larger public buildings, and from it will radiate the important avenues of travel. At convenient points these avenues again widen into circles, from which other diagonal streets radiate. The proposed civic centre, while it is situated at the intersection of two of the widest and most important of the existing thoroughfares, is essentially a new creation, because most of the avenues which pass through it, will have to be cut without much reference to the existing map of the city. A broad ornamental thoroughfare, the so-called Panhandle, is to connect the Plaza with Golden Gate Park, and is to be extended in the opposite direction straight to the bay. Market St. will run from the Union Ferries through the Plaza to and around the Twin Peaks. In the same way Van Ness Ave. is to be continued across the Square to another plaza, which would, it is stated constitute a convenient place for a Union Railway Station.

This general description, although it avoids many essential details, will not, of course, mean very much to a person not familiar with San Francisco; but everybody who knows the city will understand that it constitutes an ingenious and complete means of connecting by broad thoroughfares its several main divisions. One arm of Market St. will lead directly to the shops and the banks. The other will aim for the Twin Peaks, which are the finest pair of hills which have been left comparatively unmutilated by the existing city plan, and will form an artery of travel to an important new section of the city beyond. The Panhandle will run from the Plaza to the one park of which San Francisco can be proud at present, and its continuation beyond the Square will give direct means of communication to a busy manufacturing district. Van Ness Ave. will lead to what is at present the most desirable residential quarter, with which it will be better connected by several new diagonal and irregular streets, while it is proposed that its prolongation across the Square shall connect with a railway station, at which all the trains coming from the south shall enter the city. Thus the residence, the financial, the shopping and the manufacturing regions are tied together with broad, convenient and imposing thoroughfares, while at the same time the most beautiful parks and the undefiled hills are made much more accessible than they are at present. As the city grows in population these thoroughfares could be tunneled with subways, which would constitute a singularly effective means of inter-communication, and it is safe to say that if such a scheme could be even in some measure realized, San Francisco would be very much the most conveniently planned city in the United States. Its growth, instead of being confined by difficult, expensive and laborious means of inter-communication, would be enormously accelerated by unimpeded freedom of movement. At the same time an opportunity would be provided for the construction of a substantial, enduring, and, perhaps, a handsome city of brick and stone in place of the unsafe and existing city of wood.

Some mention should also be made of the new parks, which the Burnham plan



TWIN PEAKS AT THE END OF MARKET STREET—THE PROMISED SAN FRANCISCO.
(Sketched by E. H. Bennett.) Report of D. H. Burnham.



VIEW FROM THE SOUTHEAST, SHOWING THE TREATMENT OF TELEGRAPH HILL.—THE PROMISED SAN FRANCISCO.
(Sketched by E. H. Bennett.) Report of D. H. Burnham.

proposes to create. The steep hills, on and around which so much of San Francisco is and must be built, and commanding as they do magnificent views of the noble bay and the fine country sides to the south, afford on their crowns and slopes, opportunities for parks, which in themselves would repay a journey across the continent. These opportunities have so far been largely neglected, Golden Gate Park being the only important exception. Even Telegraph Hill, which is so steep that nobody but very poor people will live on its slopes, and around which so many racy historical memories gather—even Telegraph Hill has been left in a squalid, disheveled and almost useless condition. Mr. Burnham's plan proposes that wherever possible these mutilated hills shall be recovered, and that those which remain unmutilated shall be claimed by the community. It is proposed in general that the summits of all high hills shall be left pretty bare, while their slopes shall be clothed with trees, but the line made by this foliage should not be horizontal, but should be adapted to the varying contours of each hill. Level contour roadways around the sides of the hills are proposed, accented at places of interest by terraces and approached gradually from the abutting streets. The top of Telegraph Hill is to be made into a park, especially designed, in order to give some kind of foreground to the views of the shipping and bay to be seen therefrom, and the lines of approach are to be completely reformed. Russian Hill and Pacific Heights are to be reached by circular parkways. Similar treatments, adapted to the diverse conditions of each particular case, are proposed for Lone Mountain, Buena Vista Park Hill, Potrero Heights, Bernal Heights, Sutro Heights and the hills south of Islais Creek. The Presidio is, with the cooperation of the military authorities, to be made into a park, which will be a monument to the National Army. But the Twin Peaks and the Lake of Merced beyond are to be made the occasion of the largest and probably the most beautiful park of all. The Twin Peaks are topographically the focal point of the city, and by the time San Francisco has a population of several millions, it may well be the most convenient spot for great popular festivities. It is proposed, consequently, that provision be eventually made in that neighborhood for public fetes and entertainment on a very considerable scale, so that this park will contribute more than any other single feature of the city to the fulfilment of San Francisco's obvious opportunity to become a great pleasure resort.

In making the foregoing summary of Mr. Burnham's report, we have for the most part intentionally subordinated aesthetic to practical considerations, because one absolutely essential condition of the success of such a plan is that it shall be justified on economic grounds. It must be worth in dollars and cents to the city of San Francisco as many dollars and cents that it will cost, and it remains to be seen whether the practical advantages promised by the plan can be economically bought by the continuous and considerable expenditure which its realization, however slow, will demand. Whether the adoption of such a plan actually will pay is a question which an outsider is not competent to answer; but it may be said in general that the plan, expensive and drastic as it is, ought to pay—provided San Francisco is growing and continues to grow as fast as its citizens claim. If the increase in population does not amount to more than about 30 per cent. each decade, it is entirely possible that wealth would not be accumulated in sufficient quantities to make possible even the gradual carrying out of such a plan. But if San Francisco is really beginning to increase in population at a rate of five per cent. or more each year, it is probable that the wave of its prosperity could carry easily even a vessel of such tonnage as the Burnham plan. Only in case it is too big for the city will it fail to pay.

Moreover, should this condition be fulfilled, San Francisco will begin the building of the new city under circumstances very much more advantageous

than those which obtain in many older and larger cities. It is still possible to reform San Francisco without incurring a prohibitive expense. The city is apparently just entering upon a period of more rapid and substantial growth, but this growth, while it has already caused a lively advance in real estate values, has not traveled so far along the existing thoroughfares as to forbid some retracing of the steps. Most of the new avenues suggested in the report are to be cut through a part of the city in which real estate prices remain moderate, and if early action were taken in the direction of legally laying out the Plaza, and its tributary avenues, the expense of this part of the scheme probably would not be more than the city could immediately bear. On the other hand, if nothing is done for the next ten or fifteen years towards the achievement of this Central Idea in the plan, it is entirely possible that the increase in real estate values will make the scheme impracticable. It is very desirable, consequently, that the advocates of the plan should first secure the adoption of this central idea, and should push for its early realization. The subordinate parts of the plan can be carried out gradually, but if the Plaza has to be abandoned because of the expense it entails, the whole scheme becomes comparatively valueless. It is just this Plaza which will make all the subordinate improvements pay.

In another respect, also, San Francisco can better afford to carry out a drastic plan of reform than can many older and wealthier cities. There is no city in the world which has so much to gain from making itself attractive—from giving itself an amusing, festive, and distinguished appearance. As we have already pointed out, it has great possibilities as a pleasure resort, and if at the present time the tourists flock chiefly to the southern part of the state, and often avoid San Francisco entirely, it is the San Franciscans themselves who are largely to blame. They have done little as yet either to advertise or to develop the rare and extraordinary advantages which their city enjoys. It is safe to say that the beauties of its location are appreciated by comparatively few people in the East. The writer, for instance, before leaving New York, was asked frequently why in the world he proposed to spend a much longer time in San Francisco than in the southern part of the state. It is understood vaguely that the Bay is very beautiful, and that the city has some interesting shops and restaurants; but the current impression fails wholly to do justice either to the city itself, to its location, or to the surrounding country. Yet, as we have said, San Francisco is one of the few large cities in the world which are in a position to contribute vastly to the entertainment and to the good humor of mankind; and if the San Franciscans fail to give their city more of the festive atmosphere and the distinguished appearance which its opportunities allow, they will both rob their own pockets and stultify their spirits. While the mistakes and deficiencies of the city's past have been serious, they are to be explained by the economic and social instability, inseparable from the early history of an Eldorado. But if its citizens continue to act upon a narrow and ignorant view of the city's future, the only sufficient explanation will be that they are deficient in practical good sense, in liberal intelligence, and in tenacious good will. They will have beheld the Greater City from afar, and they will have rejected the vision.

Be it added, however, that too much should neither be demanded nor expected. The San Franciscans of the present generation have the foundations to dig, not the structure to rear; and Mr. Burnham's plan, rightly considered, is a sketch of the preliminary lay-out rather than that of the triumphal edifice. It is not desirable that too much haste should be made. We believe that it would in the end prove to be a misfortune rather than a blessing for San Francisco in case a rich man put $100,000,000 into the hands of a competent Commission for the realization of the plan, and in case the Commission were granted by the Legislature full legal powers for the immediate building

of the complete structure. Such would not be the best method of reaching the consummate result. The citizens of San Francisco would obtain in this way a much more spacious, magnificent and convenient house in which to live, but we fear that their mansion would lack character and charm. You can plan to make a city convenient and appropriate, but you can hardly plan an edifice on a large scale that is to be both individual and beautiful. Such a city must necessarily be the work of many vigorous and formative minds, acting under all sorts of conditions, but gathered slowly into something like a coherent result by the influence of a common purpose and certain accepted traditions. There must be about it much that is accidental and mysterious as well as much that has been foreseen and proposed, and it must within certain limits be judiciously left to itself. Above all, it must be allowed to ripen slowly, so that it may not wear the aspect of a modern improvement, but will really be the outcome of the better sense and taste of the people of San Francisco, helped out by the formative imagination of a few. In this way all great cities must be built. Even Paris is the child, not so much of M. Haussman as of the French temperament and tradition. Wherever the attempt has been made merely to Parisianize other cities, the result has sometimes been imposing and grand, but it has also usually been pretentious and dull. The San Franciscans of to-day must expiate their past by being patient and self-sacrificing. If they push the work too far and seek a superstructure without a sufficient foundation, they could hardly build anything better than a House of Mirth, which would be festive without being either dignified or honest. They must be content to have their successors rear the many-storied mansion, which, if it is adequate, will have about it something of the glamor of the golden land, and something of the nobleness of the Bay and its encircling hills. A city of San Francisco, which triumphantly crowned its location, could not but become one of the most precious national monuments of the American people.

Herbert Croly.

Postscript.—The foregoing article was written before the occurrence of the recent earthquake and conflagration, but we have allowed it to stand as it is, because it remains as true under the new conditions as it was under the old. Mr. Burnham's plan is an attempt to adapt the plan of the city to its topography, and the topography of the city has not been altered by the destruction of so many of its buildings. Indeed, the conflagration, deplorable as it was, offers San Franciscans a chance to improve the lay-out of the city at a much smaller expense than would formerly have been required, and it is to be hoped that certain steps in the direction of the realization of the scheme, which would have been postponed for years, can now be taken immediately. Of course, it is possible that the city may not be able to afford such expenditures just now, and that it will have to be rebuilt as soon as possible along the old lines. But we sincerely trust that such will not prove to be the case. San Franciscans need a better-looking and a more convenient, as well as a more substantial city, and it would be a thousand pities in case the recent conflagration cannot be made an opportunity for realizing more quickly some of the essential parts of Mr. Burnham's plan.

Indianapolis Court House and Post Office.

An attempt to meet the improving architectural taste of the country is manifesting itself more and more in the recent public buildings of our lesser cities. Every community as soon as the population reaches a certain mark must have its own Post Office, its Court House or its municipal building, and any old building will no longer do. Civic pride demands something pretentious, something dignified and architectural, something that the native can point out to the visitor, and of which he can proudly remark: You see the place used to be wild and wooly, but this is the way we do things now! This state of affairs has produced a great variety of very charming architectural problems, which have been creditably solved under the direction of James Knox Taylor, the Supervising Architect for the government.

We reproduce herewith an example of the larger type of structure done under Mr. Taylor's supervision. In this case the building serves the double function of Court House and Post Office. The building covers a considerable area and presents a problem which offers the architect ample scope for exercising his ability to produce a monumental building. The result shows that he has not altogether failed to take advantage of the opportunity.

Stone is plentiful and cheap in Indiana, especially limestone; the entire walls have accordingly been incrusted with it and at a cost which would perhaps have necessitated the use of baser materials if attempted in New York. The architect seems, therefore, to have started with a substantial advantage.

The first impression that one gets of the exterior is one of many columns; how many? let the reader guess at a glance. He will perhaps need to resort to arithmetic for the answer. Though a bit tedious the colonnade gives the exterior a quiet dignity and expresses to some extent the judicial purpose of the building, while the many openings suggest the post office function.

It is perhaps not very clear why the designer should have seen fit to subdivide the second and third story windows by stone mullions into three parts and in such a way as to render the outer divisions practically useless for light-giving purposes, they being mere slits. This window treatment is a case in which the artistic fancy of the designer has resulted in something concretely impractical; he probably felt that the first story being more important than the upper stories, should have larger windows, at the same time the central divisions (which are respectable windows) without the slits, he probably thought looked insufficient to properly light the interior of the building, therefore his solution. If the colonnade escapes the fault of monotony the decorative treatment of the openings is unable to interest us partly on account of its bare hardness, partly because it does not seem to go well with the Ionic columns. The objection to bareness might be extended to the upper members of the order; the attic looks especially bare over the end pavilions; though more ornate but scarcely more interesting is the interminable balustrade over the curtain wall. The inscription in the frieze under it cannot be called happy; it does not fill the space well, and might perhaps have been used to greater advantage in a modified form on the pavilions, which emphasize themselves by their lack of architectural adornment. A French architect would not have been satisfied to leave such an uninteresting silhouette or to employ such a comonplace Ionic order. He would have felt the need of something more appropriate than a flagpole to accentuate the end of his composition; he would have placed some sort of a point of interest over or on the end piers or something on the axis of the pavilion; he would have varied his attic treatment or broken up the long lines of the cornice with blocks or consoles or anything to avoid the Einerlei from which the building does not entirely escape.

The excellent setting relieves this im-



PRINCIPAL ELEVATION OF THE INDIANAPOLIS COURT HOUSE AND POST OFFICE.

Indianapolis, Ind. James Knox Taylor, Supervising Architect for the Government.



THE TWO-STORY INTERIOR COLONNADE WITH VERY FRENCH IRONWORK.
INDIANAPOLIS COURT HOUSE AND POST OFFICE.
Indianapolis, Ind. James Knox Taylor, Supervising Architect for the Government.



COLORED MOSAIC AS WELL AS MARBLE PLAYS AN IMPORTANT PART IN DECORATING THE INTERIOR.
INDIANAPOLIS COURT HOUSE AND POST OFFICE.
Indianapolis, Ind. James Knox Taylor, Supervising Architect for the Government.



ONE OF THE LONG VAULTED CORRIDORS.
INDIANAPOLIS COURT HOUSE AND POST OFFICE.

Indianapolis, Ind. James Knox Taylor, Supervising Architect for the Government.

pression considerably and makes up by lamp-posts and little architectural devices for shortcomings elsewhere. It will be noticed that the forms employed on the parapet, that surrounds the terrace, and on the pedestal that supports the colonnade, are almost identical and that variety is effected by varying the proportion between baluster and post spaces and by treating the panels in slightly different ways. The steps leading up to the pavilions are particularly happy; they look frank and inviting.

The whole exterior composition, which pretends to be severely plain and admirable for the largeness of its parts rather than by reason of any ornateness, agreeably disappoints us on the interior by its stately corridors with their vaulted ceilings, its rich marble incrusted walls and floors, and a free and fanciful ceiling treatment in colored mosaic, which in some parts of the building would take one back to those charming villas of the Italian Renaissance.

H. W. Frohne.



A VERY EFFECTIVE COFFERED VAULT, SHOWING ALSO THE EXTENSIVE USE OF MARBLE FOR STRUCTURAL AS WELL AS FOR DECORATIVE PURPOSES.
INDIANAPOLIS COURT HOUSE AND POST OFFICE.
Indianapolis, Ind. James Knox Taylor, Supervising Architect for the Government.

Roman Art.

Part I.

A recent number of the Architectural Record* contained an article about a Greek temple. In that article we endeavored, in studying a monument, to evoke the entire field of art which that monument implied, to show what refined requirements such a building had to satisfy, and to convey a clear understanding of the leading principles of Greek art. A creation so perfect as was that art must be admired as long as men endure on the earth and continue to care for harmony, rhythm and richness of color in their edifices.

We endeavored to show what part of the Greek genius could be incorporated in our own. It has often been interrogated during the course of the centuries, but in most cases the precise questions which it might have answered have not been put. It must be studied in the spirit and not by the letter, and when this is done it will perhaps even to-day be fruitful in lessons.

It is in this same way that we propose now to study a few monuments of Roman art. We know the rôle which, in the Scandinavian mythology, is attributed to the "Mothers," who are the source of all life and guide our destinies. So the two arts, the Greek and the Roman, are the real "Mothers" of architecture, for they have played an all-powerful part in the evolution of architectural styles. These "Mothers" differ in stature and aspect, but both of them are truly noble, and we of the twentieth century are their unworthy sons.



FIG. 1. THE COLISEUM—ROME.

*June, 1905.

These pages are being written under a grey, tinted sky on the shore of the English Channel, not far from Bayeux, where William the Conqueror lived. Well, the main roads leading to Bayeux to-day follow the very lines of the Roman roads traced nineteen centuries ago. Rome reigned here, and when the writer takes a bicycle ride from Bayeux to Courseulles he sees one of her mile-stones still standing, and it carries his thoughts back to that great Power which subdued the whole known world, from foggy Britain to the arid, sunburnt tablelands of Parthia and Persia.

If one wished to compare the value of Greek art with that of Roman art there can be no doubt as to what the result would be. Greek art would far surpass its antique rival. But if one measures the influence that the two arts have had upon civilization during the course of its development, then Roman art takes its revenge. Athens has remained Athens, the home of delicate and refined spirits. But Rome conquered the world and imposed her laws, which still fill our Codes, and her art. She triumphed twice: first, in the antique period, and again when, after a sleep of a thousand years, the force of her art was so great that it conquered the world anew at the Renaissance, since which time it has continued to retain its hold.

Look at the cornice of your ceiling, or the decoration of your fireplace, or the front of the house across the street, and you will see Roman ornamentation still triumphant, although enfeebled, degenerate and without relief or beauty.

* * *

All Grecian architecture was summed up in the temple. It will not be difficult to find an edifice standing for all Roman architecture, but here it will not be a temple which, above all other edifices, embodies, for us, the Roman spirit. The times have changed. We are not dealing with those heroic and religious epochs which witnessed the founding of the Greek cities. We are entering upon the study of a civilization already far advanced in the ancient world, a civilization that has inherited much wealth, amassed by others. New tastes have developed. The Roman, for whose splendor the entire world now labors, leads a sumptuous life in the city, a life of luxury and comfort formerly unknown. Domestic architecture scarcely existed for the Greeks, and it produced no work deserving of our attention. The Roman houses, on the other hand, are of the deepest interest, architecturally and historically. They show us the Roman spirit at its best—practical, ingenious, and aiming at largeness and solidity in architecture. Furthermore, we have an abundance of data to go upon here, enabling us to reconstitute the abode of a rich Roman down to the smallest detail. But, to have an edifice really representative of the Roman spirit, Roman art and Roman civilization, we must not take a private house, for with the Roman there was one consideration which dominated all others, namely, public utility. He was a citizen of Rome—*civis Romanus*—first, and a private individual afterwards. A practical people of conquerors, that is what the Romans were. The material organization of public life, the providing of roads, bridges, aqueducts and sewers, the building of basilicas, wherein justice was administered, temples, arenas, circuses, it was in these works that the Roman appeared at his best and displayed qualities which, although of almost opposite kinds, met together in him, namely, a conception of the big, the monumental, of what produces an effect and impresses the masses, together with a marvelously true notion of what is practical, of what is suitable for a particular purpose, a perfect adaptation of a building to the requirements which it has to meet, and, lastly, a taste for comfort which, until then, was a thing unknown. Those are the double qualities which make the Roman worthy of our admiration and to which the greatness of his art is due. To find a complete combination of those remarkable qualities and see them in action, there is one kind of edifice which must be studied in preference to every other: we mean the *Thermae*.

The *Thermae* are a magnificent and essentially Roman creation, in which the special qualities which the Romans brought to bear upon their architecture

were fully utilized. Never before had any *Thermae* been constructed which even approached those conceived and executed by the Romans. Afterwards came the barbarian invasions, and the Roman *Thermae* now stand in ruins, eloquent witnesses to a civilization so refined that we of to-day can scarcely picture it in imagination.

In order to complete what it is essential to say about Roman art, we propose, after examining the *Thermae*, to cast a glance over a luxurious villa—that of the Emperor Adrian, at Tivoli—so as to show how much the Romans comprised in the term domestic architecture. Before we do this, however, it will be well for us to speak briefly of the particular combination of elements composing Roman architecture, which is not, like the Greek, an organic style, but a derived or secondary architecture. This once established, we shall only have to show what use the Romans made of their architecture.

* * * *

Roman architecture is characterized by the use at one and the same time of the full-center arch, copied from the Etruscans, and of the platband and the orders, taken from the Greeks. These two principles of construction are contradictory. That, however, did not trouble the Romans, who brought them together. Discharging by means of a full-center arch is far better than discharging by a platband; yet the Romans put a platband over a full-center arch.

The vault principle involves a number of consequences: the springing points, the organs counteracting the thrusts, the external form of the vaults —cupolas or sharp-pointed timber-work

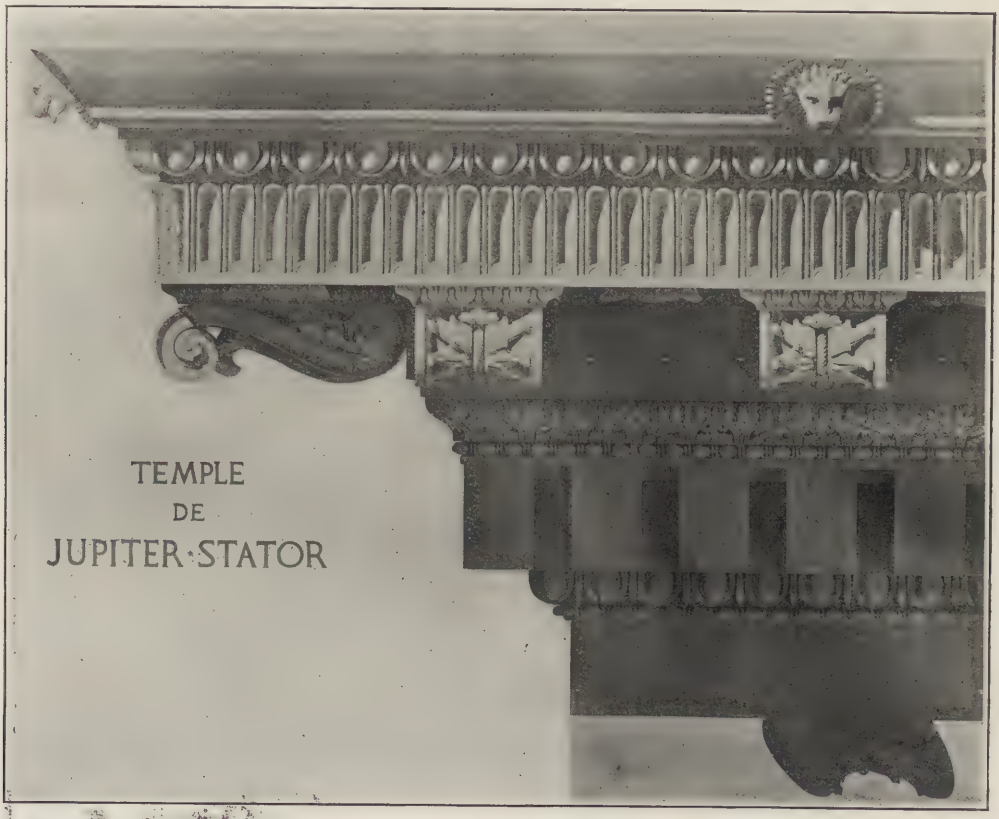


FIG. 2. THE CORNICE OF THE TEMPLE OF JUPITER STATOR—ROME.

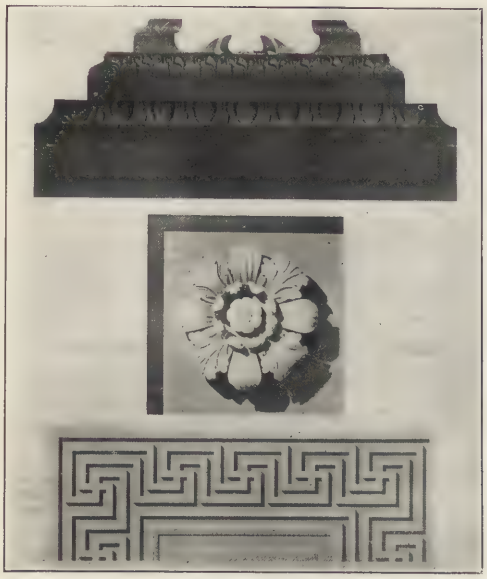


Fig. 3. Detail from the Temple of Mars the Avenger—Rome.

—which constitute an architecture having clearly marked characteristcs.

In the same way, the adoption of the horizontal arch and the supporting columns necessitated certain forms, to the exclusion of others. The plan of the horizontal arch with supporting columns was followed by the Greeks to its extreme consequences. They never deviated from the road which logic and their artistic instincts told them was the only right one, and thus they created an admirable organic style—organic in that each member has its *raison d'être* and its proper place in the whole organism, not one being useless and each one fulfilling a function.

The French of the Middle Ages chose the opposite principle of the curved arch, and, after much groping, discovered a vault resting on pointed arches. With a logic not less rigorous than that of the Greeks of the sixth century B. C., and an artistic sense just as refined, they deduced—if we may so put it—from this vault system all the many consequences flowing therefrom. The small columns, the pillars, the buttresses, the counterforts, were precisely what they should be for the part they played in the edifice; and, following them, all the details of the building took the forms which the ribbed vaults, the buttresses and the counterforts rendered inevitable. The windows were groined and made to fill all the space between the pillars, roses lighted the tympanums, and the counterforts were tipped by pinnacles. Then sculptured decoration bedecked and beautified all the vast edifice. In this way arose the second of the great organic styles, and the last for many centuries.

In both cases, the course followed was one and the same. Starting from different principles, Greeks and French arrived at different solutions, one as valuable as the other.

With Roman architecture it was nothing of the kind. It is made of a number of pieces; it is a compromise between strongly opposed principles, and therefore it must not be expected to display that rigor of development that marked Greek and Gothic architecture, nor, from that standpoint, to teach those admirable lessons which are to be learned from these, the only organic styles that the world has known. Yet many useful things can be learned from it.

In the first place, let us see what its building methods were. As stated in our previous article, the materials available and the economic conditions that prevailed made certain building methods obligatory, to the exclusion of others. The Romans were a practical people; they were organizers, and they well understood how to adapt the means to



Entrance to the House of Pansa—Pompeii. (Restoration.)

the end. On the other hand, they were not refined artists, and they lacked that delicate taste which made Athens glorious. If the work was strong and solid, that was enough for them. Moreover, they had no difficulty in finding labor, for they possessed slaves in plenty, to whom they could pay just what wages they chose.

The process mostly followed by the Romans was the concrete process: that is to say, between facings in brick they put successive layers of mortar, sand and small pebbles, so as to form one solid mass. In this manner they covered vast halls with horizontal courses. For these heavy vaults they needed enormous resting points, and, as a matter of fact, the walls supporting them were of immense thickness. In the case of the Pantheon, for instance, the hall has a span of 43m. 40c.m., and the circular wall is 5m. 40c.m. thick, or, say, one-seventh of the span, measured inside. It mattered little to the Romans that these masses of materials required many workers, for they had laborers in abundance, and those laborers were slaves. It is also to be remarked that such a system of construction did not call for any skill on the workman's part. When the Greeks built the solid-jointed walls of a temple in dressed stone, and placed in position the enormous blocks composing their columns, it was necessary that the stones should be well and truly dressed. With the Romans it was different. A few skilled workmen for the outside brick facings was all they required. The filling-in could be done by slaves. Thus Roman buildings were what the prevailing economic conditions caused them to be.

For a long time the Romans used sun-dried bricks; but when they conquered the East they saw the superiority of the burnt brick. Augustus said that he succeeded to a Rome built of earth, and was leaving behind him a Rome of marble. He would have been nearer the truth had he said a Rome of brick faced with marble, for such was imperial Rome.

However, we are not writing a history of Roman architecture, but taking it as it stood at its best, under the Empire.



FIG. 4. A ROMAN COMPOSITE CAPITAL.

We have shown that in Roman building there were two very different things, viz., the wall, in brick with central part of mortar and small stones, and the casing, which, most often, was in marble, but occasionally in stucco. These two things—the construction properly called and the decoration—had distinct and independent existences. This is a new fact of great importance, and its consequences are strongly felt even to-day.

* * * *

In Greek architecture the same rhythm pervaded both building and decoration. The decoration was executed before being put in place, so that each member of the construction kept its individuality and was at once constructive and decorative. It was the same later on in France with the Romanesque and pointed styles. To give but one example of this, the curves of the arches, whether full-center or pointed, which crown Romanesque and Gothic doorways, were built of carefully dressed stones, and each stone,

which was a necessary and an independent part of the whole arch, was given a special decoration. Often it was a saint or a sacred person, but sometimes a decorative motive. Whether figure or ornament, it was sculptured before the stone was placed in position, and was, therefore, for that stone alone. There was no danger of one personage or ornament covering two or three stones. This is what may be described as animating building and decoration with the same rhythm. It is scarcely needful to point out the superior and unique quality of an edifice built according to these rules of harmony. When we look at a Greek edifice, or a French mediaeval one, we immediately grasp the fundamental lines, and even the smallest details of the building, which the decoration, instead of concealing, throws into clear relief.

In Roman architecture it was not so. The building-work and the decoration are independent of one another. In the former there were two entirely distinct parts, namely, the central mass, formed of a conglomeration of stones and cement in layers, or of stones and mortar, and a casing of brick. Over this came the decoration. Brick being neither a rich nor a handsome substance, it was not good enough for the proud Roman of the Empire, who was master of the world and who wanted his public edifices to proclaim his glory. So the brick wall was plated with marble. And to give a fitting exterior to the edifice had he not for models the masterpieces left by the Greeks—the temples, with their colonnades, their architraves and their frontons?

So the Roman took without hesitation all the members of Greek architecture. He took the column, the capital, the architrave, the frieze and the cornice, the triglyphs and the metopes, and the frontons; and he stuck all those things on his own edifices. But each of these members of Grecian architecture fulfilled a function proper to itself in the edifice. If they were there it was because they served a purpose. Take as an example the column in the Greek temple. It carries the entablature, which itself bears the whole roof. Remove the columns and the roof falls.

Let us look now at a Roman edifice. We again find the column; but how changed! Whereas it used to form an integral part of an architecture with platbands, now it is in an architecture with arcades. It used to support the entablature, but now it supports nothing, for, as is seen in the example here shown (Fig. 1), the Coliseum, the arch rests, not on the column, but on imposts. What, then, does the column do? It is stuck on a mass of masonry which supports the arches. It only bears the entablature, which itself, moreover, is stuck on the front, above the arches, and does not serve any real purpose in the construction. Column and entablature could be suppressed without the edifice suffering thereby, whereas in Greek art they are the very edifice itself. In Roman architecture they are a plaything. But in the matter of decoration it is dangerous to play, because when one begins one doesn't quite know where to stop. When the decoration forms an integral part of the building it is confined within narrow limits; when it is independent, nothing restrains it. In the latter case, to go to an extreme is an easy step. But there is more than this. Decoration, when stuck on in the Roman fashion, loses all meaning, whereas in the organic styles, Greek and French, the decoration signifies something and serves to accentuate the construction. In the Roman method, it disguises the construction. This is a serious fault in Roman architecture.

We think it was Viollet-le-Duc who said, in his "Entretiens," that Greek architecture was like a nude man admirably proportioned, and all of whose members are in perfect harmony with each other and with the whole body, whereas Roman architecture, on the contrary, was like a man fully clothed, and whether the clothing was handsome or plain was unimportant, for one did not see the body, as it was hidden and disguised. The man might be misshapen and have very fine clothing, or



FIGS. 5, 6. FRAGMENTS FROM TRAJAN'S FORUM—ROME.



FIG. 7. ROMAN FRIEZE IN THE LATERAN MUSEUM.

he might be well built and wear shabby garments.

We owe independent decoration to the Romans, and we know too well what success it has met with in the world. During the Middle Ages, at the Romanesque and Gothic period, architects shook themselves free from the evil Roman influence in this matter of decoration; but as soon as the Renaissance came and the notion was conceived of but façades, and we still continue to produce nothing else. The architect who cannot design a handsome front will never win a prize in any competition. Whatever may be the material employed, or whatever the purpose of the edifice, we *must* have a decorated front, with a profusion of ornamentation. And the ornaments that triumph on our fronts, whether the building be a railroad station, a hotel, a city hall, a



FIG. 8. FRAGMENT OF CORINTHIAN ORDER, THE PANTHEON—ROME.

seeking the so-called eternal principles of architecture amid the Roman ruins, this deplorable conception of independent decoration was unearthed also, and it has militated against good architecture to a greater extent than anything else, by causing to fall into oblivion that which really constitutes a work of art, where decoration is merely the external and ornate expression of the construction itself.

Since the seventeenth century architecture has consisted of very little else factory, an apartment house or a private dwelling, are, of course, the Roman ornaments, exhumed at the same time as the Roman theory of independent decoration.

In Roman architecture the building proper is of the first class, and therefore it is an architecture which, in ruins, appears to better advantage than any other. The decoration has disappeared, the marble plates, the capitals, all the facing, in fact, has been destroyed in the course of time, and

nothing is left except the solid courses of the walls, the bold vaults, and their enormous buttresses. There also remain the fine brick and concrete work, harder than granite, the general conception, always a grand one, and the plan, which is in every case a marvel of clearness and ingenuity. One stands in wonderment before those works, which, in their present ruined state, are of a purer beauty than they were when Time had not stripped them of their covering of marble, stucco and bronze.

* * * *

We have said that the Romans only took the members of Greek architecture for the purpose of using them as decorations. As they aimed at richness of effect it was natural that they should ignore the Doric order, the strong, severe beauty of which they could scarcely understand. In the same way, the refined elegance of the Ionic order escaped their perception. Yet they did employ both orders; the Ionic to a much greater extent than the Doric. It is needless to say that there was a marked difference between the pure Greek profiles and the Roman profiles. But their favorite Greek order was the latest and the least pure, the Corinthian. The apparent richness of the Corinthian order captivated them. It is the Corinthian order, modified, however, and transformed and further enriched, that we meet with in almost the whole of Roman art.

The innovations introduced into the orders by the Romans were not happy ones. For instance, they got the idea of giving the columns a square base. Nothing more awkward could have been imagined, as the corners obstructed men's movements in the temples, basilicas, porticos, and, in fact, wherever a crowd assembled. As for the entablature, of course it was no longer bound by the rigid rules which had been fixed by the critical mind and fine artistic sense of the Greeks. The frontons also underwent fanciful and unfortunate changes. It is to the Romans that we owe the heresy of broken frontons whose coping stops short in-



Fig. 9. Late Roman Altar, Showing Romulus Being Suckled by the Wolf—Also Other Legendary Subjects.

stead of rising to the top; and also the frontons in the shape of an arc of a circle. Think of what the fronton was in Greek architecture, and you will be able to measure the gulf separating the two arts.

Having said this much, and made these reservations, which it was necessary to do, we are now free to praise the splendor of Roman decoration. Look at our architecture, with its degenerate ornaments, lacking all emphasis, fancy, vigor and relief, and then turn to those noble Roman prototypes which it has been vainly attempted to imitate. There we see the ornament in glorious life, fruit of a noble imagination, and in an inexhaustible abundance. And there is about it a vigorous, masculine accent, a brilliancy of form, that never fatigues us.

We have gathered here a few typical examples of Roman decoration. Take, for instance, Fig. 2, which is a fragment of the admirable Temple of Jupiter Stator in the Roman Forum, and which displays in the cornice reproduced a superb example of Roman Corinthian. To this must be joined a detail of the

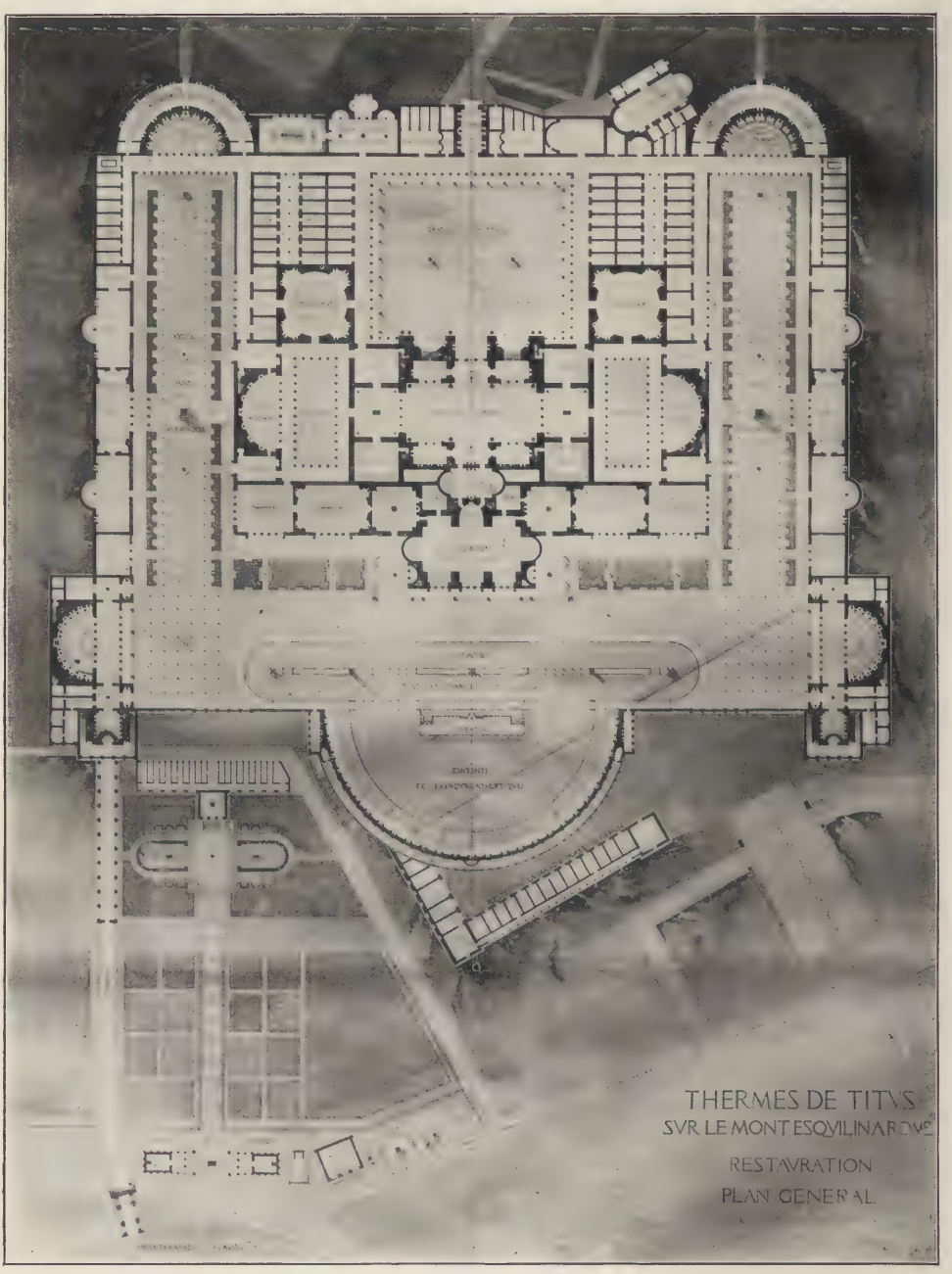


FIG. 10. PLAN OF THE THERMAE OF TITUS—ROME.
(Restored by Leclerc.)



FIG. 11. SECTIONAL ELEVATION—THERMAE OF TITUS—ROME.
(Restored by Leclerc.)

coffer of the Temple of Mars the Avenger (Fig. 3). Both of these have been reconstituted by architects of the French School in Rome.

The six following illustrations show details of Roman decoration at different periods of the Empire: a composite capital (Fig. 4); friezes and coffers from Trajan's Forum (Fig. 5); a charming fragment found in the same Forum (Fig. 6), showing the Roman decorative fancy in all its graceful freedom; a light frieze preserved in the Lateran Museum (Fig. 7); fragments with fishes and shells, from Agrippa's Pantheon (Fig. 8); an altar of somewhat more recent date, found at Ostia, bearing historical or legendary subjects—Romulus and Remus being suckled by the wolf, etc. (Fig. 9).

It is impossible to look at this series of decorative motives, taken almost at random from among the numerous fragments that remain, without realizing how much life, strength, graceful inventiveness, suppleness and fertility there was in Roman decoration. And everywhere, a thing which we have completely forgotten, an excellent relief, a true understanding of the play of light and shade which sculptured ornamentation ought to produce on a façade.

* * * *

But it is not in decoration that we must look for the great qualities of the Roman mind: it is in the plan, the arrangement of an edifice according to a fixed scheme, the execution thereof, that is, the building, that we find how admirable was the Roman spirit and how much there is to instruct and interest us even now.

The Roman wished to do things on a big, a monumental scale. Many conquering nations have had the same desire. Louis the Fourteenth was haunted



FIG. 12. RESTORATION—THERMAE OF TITUS.
(Restored by Leclerc.)

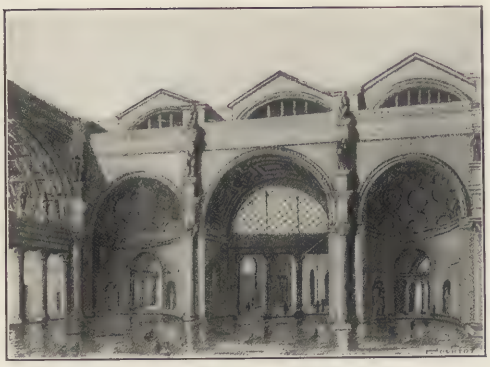


FIG. 13. THE FRIGIDARIUM.
Thermae of Caracalla, Rome.
(Restored by Viollet le Duc.)

by this idea, and he carried it out more than once. Since then, how many German kings and princes have there not been who have imitated the *Roi Soleil* and aimed at doing big things!

Louis XIV., when he built Versailles, did something grand and monumental, but that was all. Behind those façades there is no place for comfort or convenience, for the diversified life that must go on in an immense palace. With the Roman it was not thus. He wanted bigness, but, at the same time, his plan was a marvel of ingenuity. Nothing could be more practical, more convenient or more comfortable than a big Roman edifice.

Let us take the example of the Roman *Thermae*. There could not be any harder problem for an architect than the plan of these *Thermae*, considering all that the inhabitants of imperial Rome required of such an establishment.

A large number of people had to be accommodated there, and consequently an extensive space was necessary at the entrance. Then there had to be two large swimming baths, one cold, the other hot; rubbing rooms, sweating rooms (*sudarium*), private bath-rooms for invalids; bath-rooms for women, each preceded by an ante-chamber, and in most cases a portico was erected before the bath-rooms. At the entrance there had to be an admirably arranged vestiary. There had to be rooms for those bathers who wanted to have their bodies oiled. Inside the *Thermae* there had to be gymnasiums, meeting-rooms and reading-rooms; outside the edifice, but within the grounds, there had to be walks, porticos, a *stadium* for racing, fountains and gardens. All these things were comprised in what the Romans named *Thermae*, and it is evident that the architects had a hard task to perform.

It must be noted furthermore that the price of the baths was a moderate one. For a small sum the bather could pass the entire day in the most luxurious manner imaginable. The taste for such baths became general, as can readily be understood, so much so, in fact, that in imperial Rome there were the *Thermae* of Titus, of Trajan, of Diocletian, and those of Caracalla, to mention only the chief ones; and that the last-named, which were not the most extensive in Rome, cover, in their splendid ruins, thirty-four acres of ground. There was not a single small provincial town that lacked a sumptuous bathing establishment of this kind.

Let us now take a close look at the way in which the architect executed this complex programme.

The first thing, and one to which he attached great importance, was the bearing of the building. He so placed it that the four corners faced the four cardinal points, a favorite arrangement with the Romans, because in this way none of the fronts were entirely deprived of sunshine. He used the most suitable materials for his purpose, viz., brick for facing, with pebble or other filling-in. He was thus able to erect fine, bold vaults, solidly buttressed. Such massive walls maintain an equable temperature inside and are preferable to stone, which absorbs too much moisture and is ice-cold in winter and damp in summer.

He carefully isolated his paving from the soil, so as to keep it perfectly dry and wholesome.

In Fig. 10 we give the plan of the *Thermae* of Titus, as reconstituted by M. Leclerc, a winner of the *Grand Prix de Rome*, and whose drawings are preserved in the library of the Ecole des Beaux-Arts, Paris.

On the entrance front there was a principal vestibule, and, on either side,



FIG. 14. THERMAE OF CARCALLA—ROME.—ROOM LEADING TO THE TEPIDARIUM.



FIG. 15. THERMAE OF CARACALLA—THE ARCADES OF THE FRIGIDARIUM, ROME.



FIG. 16. THERMAE OF CARACALLA, ROME.—THE PALESTRE.

rooms for the servants. On the left there was the oil store-room; then a spacious apartment; then a gymnasium; then, on the corner, small baths for the common people. On the right there were: another oil-room, a large vestibule leading to the *Thermae* of Trajan, a library, and, on the corner, some more free baths. Facing the principal entrance there was a very large cold water swimming-bath of square shape, and on either side of this there were private bath cabins, and the vestiaries. The cold swimming-bath was very properly situated on the northeast side.

One passed from there into the *Cella Media* or temperate room; thence into the *Tepidarium* or warm room, and lastly into the *Caldarium* or hot bath, which, according to the Roman rule, was on the southwest front. To right and left of the *Caldarium* there was a series of rooms of graduated temperature. On both sides of the *Cella Media* there was a *Palestre,* for those who wanted to indulge in athletic exercises before bathing. Both sides of the principal building were flanked by large arenas for exercising, and the various store-rooms were situated in the buildings which bounded the *Thermae* on the right and left. Finally, on the front opposite the entrance stood the *Stadium* or athletic ground, and the theatre.

All that luxury could supply was provided for the Roman citizen in those magnificent *Thermae* constructed by the Caesars. Nothing was lacking. All the most exquisite refinements that the mind could conceive were to be found by the Romans in their *Thermae,* and, at the same time, everything that could promote the well-being, vigor and suppleness of the human frame. Let the reader cast a glance over the reconstitutions shown in Figs. 11 and 12, which gives part of the front and some sections of the *Thermae* of Titus, and observe the diversity of aspect of those rooms. Here, it is a rectangular tank, open to the sky; there, circular rooms vaulted in. Here, a square room, terminated by an apsis; there, porticos. There are niches, containing masterpieces of statuary; mosaic floors; marble revetments at the foot of the walls; frescoes, and stucco decorations. When we think of the beauty and variety of aspect presented by such a building we can well understand that the Roman *Thermae* belonged to so rich a past, to a life of such magnificence that their like will never be seen again.

A drawing which we have had made ming-bath of the *Thermae* of Caracalla, by Viollet-le-Duc (Fig. 13), shows the imposing appearance of the arcades and the decorated apses. Besides this, we have collected some photographs of the same *Thermae* of Caracalla, and these, too, bear witness to the striking grandeur of Roman art; those mute and colossal remains of a civilization that ruled the greater portion of the then known world. First we have the ruins of the room leading to the *Tepidarium* (Fig. 14). Next, the arcades bordering the *Frigidarium* (Fig. 15). Then the large paved hall which served as a *Palestre* (Fig. 16). One stands amazed at the size and beauty of these ruins. The central hall, intermediate between the *Frigidarium* and the *Caldarium,* was of similar dimensions to the nave of Saint Peter's, in Rome.

If one bears in mind that these *Thermae* were not only a miracle of luxury and beauty, but also of practical arrangement, and this, as we have seen, under the most difficult conditions, one understands what constitutes the real greatness of Roman architecture. This practicalness is seen in the smallest details. For instance, the heating was effected from below. The hot air circulated behind the brick facing, so that it was the walls that gave the heat. One can imagine what a task it must have been to heat such large quantities of water and air, and the difficulties which the architect had to overcome. The drainage also had to be faultless in a building where such large volumes of water were accumulated. Creations so perfect will ever remain an honor to the Roman, who displayed in them the master qualities of his mind. Furthermore, to his practicalness he united a sense of the big, the monumental, the impressive, which is, alas! the only thing we have taken from him.

Jean Schöpfer.



FRONT VIEW OF THE BUFFALO COUNTRY CLUB. George Cary, Architect.

Buffalo, N. Y.

BUFFALO HOUSES

BY

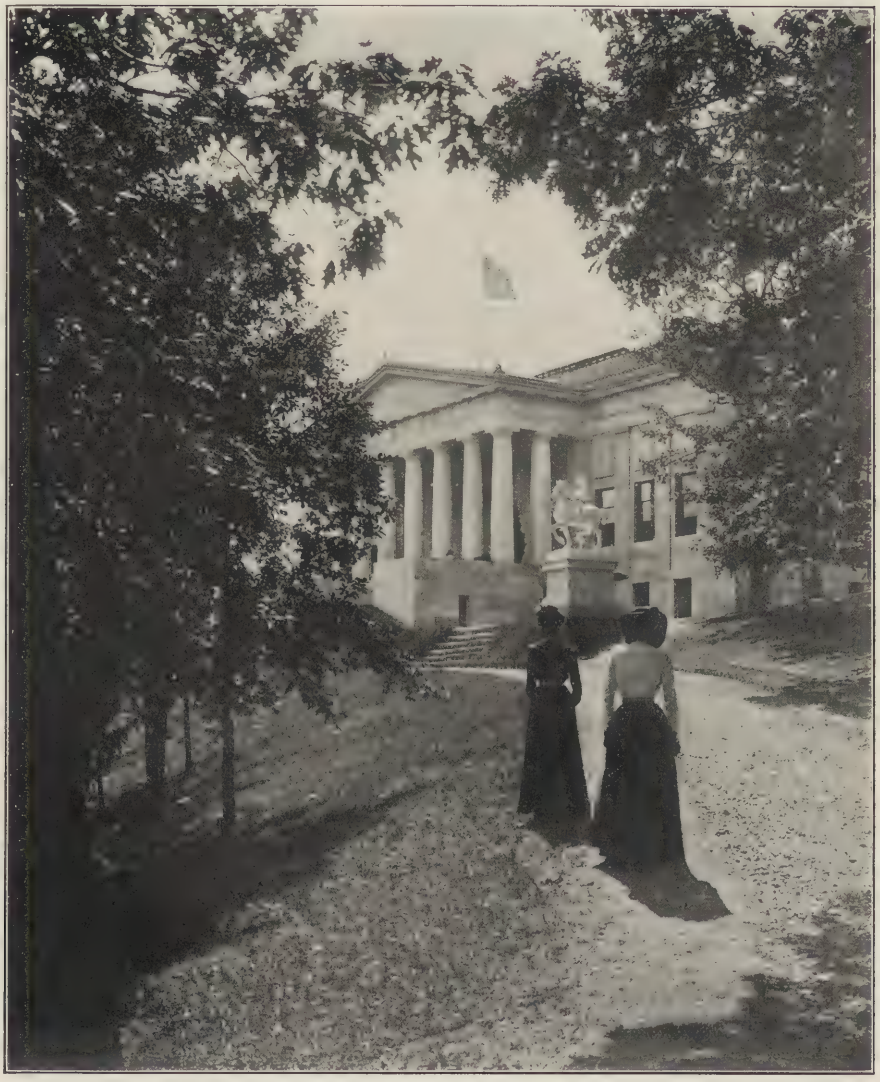
GEORGE CARY, Architect





THE HALL—BUFFALO COUNTRY CLUB. George Cary, Architect.

Buffalo, N. Y.



SOUTH ELEVATION, BUFFALO HISTORICAL SOCIETY BUILDING.
Buffalo, N. Y. George Cary, Architect.
(Anderson's equestrian statue, "Progress," in front.)



NEW YORK STATE BUILDING, PAN-AMERICAN EXPOSITION,
NOW THE BUFFALO HISTORICAL SOCIETY BUILDING.

Buffalo, N. Y. George Cary, Architect.

(Mrs. Whitney's Statue "Aspiration" in foreground.)



THE GRAND STAIRCASE HALL.



ANOTHER VIEW OF THE HALL, SHOWING ALSO THE GALLERY.
BUFFALO HISTORICAL SOCIETY BUILDING.

Buffalo, N. Y. George Cary, Architect.



INTERIOR OF MRS. WALTER CARY'S HOUSE. George Cary, Architect.

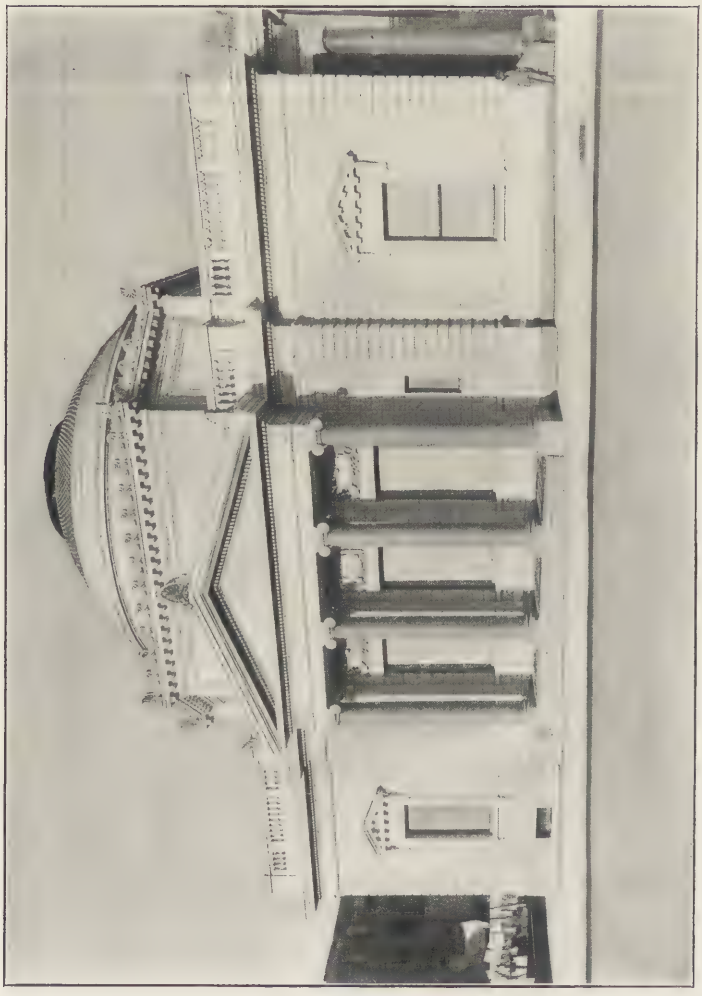
Buffalo, N. Y.



RESIDENCE OF WM. C. WARREN.

Buffalo, N. Y.

George Cary, Architect.



WILLIAMSBURGH TRUST CO.'S BUILDING.

Brooklyn, New York City. Helmle, Huberty & Hudswell, Architects.



FIG. 4. ACOMA PUEBLO, NEW MEXICO.

A Type of Original American Architecture

The architecture of a people is as much a part of themselves as their habits of living; in fact, being free from alien or abnormal influence, the architecture of a people is one of their habits of living. It develops with the necessities born of the conditions under which it exists, and given this opportunity assumes the dignity of a type.

Doubtless the first thought raised by the words, "American Architecture," will be something ranging from the rude log hut of Lincoln's infancy, or the stately Mount Vernon home of Washington, to the modern steel-skeleton skyscraper, all of which are types created by American ingenuity to overcome American necessities.

The particular type of which it is here proposed to speak is one very remote from these things, however, one more truly American, indigenous to the soil, and influenced by no borrowed motif, but the rather furnishing its own.

This briefly concerns the domestic architecture of the Pueblo Indians of the Southwest; a race probably older, certainly distinct from any other of the aborigines of the United States. These people are being civilized, Christianized, or subjected to some other process of elimination, so that they will soon become extinct, and with them their architecture will become a memory.

While many interesting examples of the original type are still to be found, the newer work shows the alien influence; and as the older buildings decay they will be replaced by work of another class.

The authorities of the University of New Mexico, contemplating a scheme for the future needs of that institution, have considered the adaptation of this style of architecture to institutional needs, and in this have the approval of some archaeological authorities.

The type is developed from the material most readily obtainable; and it most perfectly satisfies the conditions it



Fig. 1. Acoma Pueblo, New Mexico, Showing the Primitive Stairs of the Houses.



Fig. 5. Laguna Pueblo Houses Built of Stone, from which the Plaster has Fallen.

has to meet. The walls are built of stone or sun-dried adobe brick, laid in stiff adobe mud, built very thick, and plastered smoothly inside and out with the same adobe mud. Often the walls are then whitewashed with lime, and sometimes decorated with paintings. The adobe plaster when dry forms a very hard surface, reasonably waterproof, and perfectly airtight.

The floors for upper stories and roofs are formed by building in large timbers at the desired height; these support smaller timbers and the whole is covered with adobe and packed tightly. Arranged to drain toward the walls with scuppers to discharge the rainwater, these roofs do very well in a country of little rainfall.

Two or three-story buildings are the rule, passage from one story to another being obtained by pole ladders and by steps up the walls. The older Pueblo houses were often built about and facing a central plaza, thus giving a barren outside wall to strangers and neighborly comfort to those inside. Good examples of this are shown in the illustrations of Acoma Pueblo (Figs. 1-4). In this type the lower stories were originally built entirely without door and window openings in the walls, access being from scuttle holes in the roof.

The householder being on his roof, defense of this type of building was a simple matter of keeping the enemy from scaling the walls.

The successive stories retreat from the front, leaving open porches before each apartment. This is well illustrated in Fig. 2.

Some villages built in less strenuous times, perhaps, as Laguna and Zuni (Figs. 5-7), depart from the fortress type, enclosing the plaza, and follow more or less regular streets.

The photographs from Zuni Pueblo (Figs. 6 and 7) show an adobe built village; and that from Laguna (Fig. 5) shows some old stone walls, from which the plastering has fallen, as well as some newer work.

A very pictureque example of an isolated group is shown in the photograph



Fig. 2. Showing How the Successive Stories of the Houses Retreat, Acoma Pueblo, New Mexico.



Fig. 3. An Acoma Pueblo Village.



Fig. 6. Zuni Pueblo, New Mexico—An Adobe Village.



Fig. 7. Zuni Pueblo, New Mexico—Another Adobe Village.

of Taos (Fig. 8) in the northern part of New Mexico.

The illustrations given here are intended as examples of a type only, and are in no sense considered exclusive specimens.

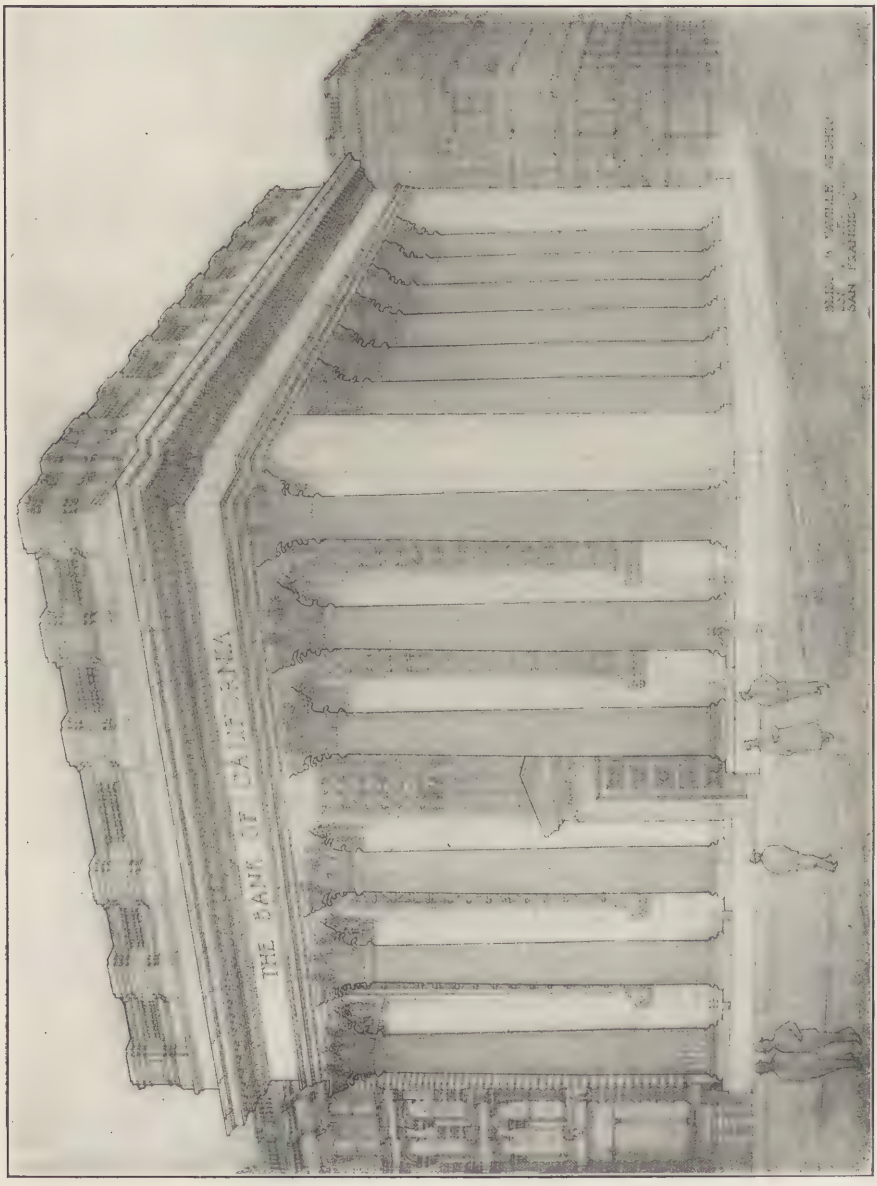
Some excellent reproductions of the Pueblo style have been made by the Santa Fé Railway Company at the Grand Canyon of Arizona. The effects are obtained in cement and stucco on metal lath.

If it be true, as we have read, that the characteristics of good architecture are that a building shall be in harmony with its surroundings; that the exterior shall be in right relation to the interior, the elevation being a natural development of the plan; and that it shall be free from meaningless and meretricious ornament, then Pueblo American architecture is good architecture, and deserves a moment of consideration; and it further possesses the merit of being a frank and logical expression of its purpose, and of the materials used.

Vere O. Wallingford.



Fig. 8. Taos, New Mexico.



THE NEW BANK OF CALIFORNIA.

San Francisco, Cal.

Bliss & Faville, Architects.

NOTES & COMMENTS

THE NEW BANK OF CALIFORNIA

We reproduce herewith a drawing of the new building of the Bank of California, which has been designed by Messrs. Bliss and Faville, and which promises to be one of the most imposing edifices in the United States devoted to banking purposes. The general resemblance of the design to that of the building of the Knickerbocker Trust Company in New York will, of course, strike every one who is familiar with the latter building; but the architects are to be congratulated rather than condemned for their frank and intelligent attempt to make under happier conditions a revised version of a good thing. American architecture has everything to gain from the general acceptance of an excellent precedent, particularly when the architects who accept the precedent are not afraid to attempt improvements. It so happens that the site of the Bank of California is better adapted to a design dominated by a colossal colonnade than is the site of its predecessor in New York. The new building, instead of being situated on a corner, will have frontages on three important streets, and will be visible from many interesting points of view. The consequence is that the colonnade with modifications has been carried around the three sides of the building, which gives it a great advantage over its prototype on Fifth Avenue. Again, the varying sizes of the three frontages have necessitated the placing piers on the corners of the façade on Sansome Street, which distinctly strengthens the design. Another improvement has resulted from the fact that the architects in San Francisco have been more fortunate in their clients. When the building of the Knickerbocker Trust Company was first planned, it was with the idea that the whole height of the interior would be thrown into the main banking office, and that consequently the exterior design would be frankly expressive of the interior arrangements. Subsequently, however, it was decided that the company could not afford to appropriate for its own use so much tenantable space, and the upper part of the building was turned into salesrooms and offices. The Bank of California, however, has not found it necessary to be as thrifty as the Knickerbocker Trust Company. Its main banking office will go clear to the roof of the building, and this fact has given Messrs. Bliss and Faville, certain opportunities of which they have not been slow to avail themselves. The whole treatment of the windows and the metal work is more uniform and more interesting than it is in the case of the New York building, because it was not necessary to obtain the same amount of blank window space for the benefit of second and third story tenants; and when the building of the Bank of California is completed, we believe that this change will contribute as much as any other to its better appearance. In short, conditions have enabled Messrs. Bliss and Faville to introduce many beneficial improvements into the precedent they adopted, and their design is at once a merited tribute to McKim, Mead & White and an evidence on their own part of good sense and of high technical skill. For they have not only been enabled to carry out the design more completely, but they have revised and simplified the ornament. They have dispensed entirely with decorative patterns on the frieze, and it looks as if they had improved the detail of the cornice. One would hardly like to say in advance that the Bank of California will, considering the scale of its colossal colonnade, look as well in its surroundings of low buildings, as the house of the Knickerbocker Trust Company looks in its many storied background; but so far as one can now tell the new San Francisco edifice will constitute a most edifying example of the value of good architectural precedents and of the proper way in which to use them.

VENTILATION

The latest addition to that valuable collection of little technical handbooks, the "Van Nostrand Science Series," is "Ventilation of Buildings," the authors of which are W. G. Snow, S. B., and Thomas Nolan, A. M., M. S. The volume, or volumette, for it contains but eighty-three pages of text, 2½ x 4 inches, is a primer of a subject about which much is heard but little done. Beyond a casual consideration of the cubical space of certain apartments the architect usually relegates the entire problem of ventilation to the care of Health Boards and Sanitary Congresses. As a result, a majority of our buildings are, in this matter, precisely where the cave-dwellers left them

no worse, perhaps, but certainly not much better off. While the facts of the problems are simple or, at any rate, well understood, the practical solution is extremely difficult to attain. Everybody agrees that proper ventilation is a most desirable provision, not to be wished for less in dwellings, apartment houses, stores and offices than in hospitals, barracks and prisons, but the necessary requirements in ninety-nine cases out of a hundred are shipwrecked, on either the rock of "expense" or the valetudinarian obstacle which the infirm name "draughts." In the strict sense of the term, few buildings are ventilated. There are windows for light and doors for egress and ingress, and, if by these channels a supply of fresh air is obtained, so much the better for the inhabitants. But this is merely passive or permissive ventilation. As a matter of fact neary every city building demands ventilation of a more positive and regulated character. The old hot-air heater did, once upon a time, in its own erratic fashion, assist the situation, but of recent years the radiator has taken its place, and this, in its usual form, rather adds difficulties to the problem than removes them. The whole subject is well and clearly discussed in Messrs. Snow and Nolan's book. Small as the volume is, it covers the matter and sets forth not only the theoretic considerations but also describes the practical solutions which modern engineering offers to the architect. This is an age of little books, telegraphic treatises, and our authors have demonstrated for us once more how possible it is to exhaust a subject in all save its minuter details in a volume far removed in bulk from the "exhaustive" and often exhausting treatise.



THE OFFICE BUILDING OF THE BUSH TERMINAL CO.
Broad Street, New York. Kirby, Petit & Green, Architects.

A JACOBEAN OFFICE BUILDING

It is amusing to contrast a design such as that of the new building of the Bank of California with the design of the offices which have recently been erected for the Bush Terminal Company on Broad Street, New York, by Messrs. Kirby, Petit & Green. The problems of design presented by these two buildings were, of course, very different, except that the two sites both had frontages on three streets, and both were to be comparatively low buildings; but the difference in the two problems does not entirely account for the difference in the two results. Whatever doubts one may have as to the architectural propriety of introducing colossal colonnades on the narrow streets of a city, there can be no doubt at all as to the impropriety of turning an office building in a busy thoroughfare into a Jacobean manor-house. A house of this character, no matter how good it may be in itself, must necessarily look affected and out of place in the midst of a lot of office buildings; and when the offices of the Bush Terminal Company are surrounded, as they eventually will be, by skyscrapers, the impropriety will become still more conspicuous. In such an environment the conscious affectation of its appearance will make the building almost trivial in effect. Its comparative insignificance in size instead of being discreetly passed over, will be emphasized. Jacobean garden fronts are all very well in their proper setting of lawn, trees, shrubbery and vines, but on Broad Street, New York City, their social situation is analogous to that of a little over-dressed English lord in a gathering of rough American cow-punchers.

LANDSCAPE GARDENING IN CALIFORNIA

Landscape architecture and gardening as an art can hardly be said to exist in California as yet, and this is only natural, because California is one of the newest States of a new country, and the art of landscape gardening is one which, for economic and social reasons, is almost the last of the arts to be assiduously cultivated. Of course a great deal of artificial planting has been done of late years both in public parks and on private ranches and estates; but the object of this planting has been almost entirely practical or horticultural. The rancher who builds a house on a bare plain or hills will nearly always surround it with a mass of eucalyptus or cypress trees, which will serve both as wind breaks and as protection against the sun, while in the fashionable suburbs near San Francisco and further south quantities of trees and shrubs have been planted in the vicinity of the largest houses. But, we repeat, the practice of landscape gardening and architecture as an art can scarcely be said to exist. Local architects who are familiar with the whole field of California rural architecture state that there are scarcely a dozen estates and gardens in the whole coast country, which have been planted for the purpose of making the trees and the shrubs contribute to an architectural effect. Even well-to-do people rarely understand that the character and distribution of the large vegetation on a country estate is vitally associated with the design and the situation of the houses, and that expert advice and assistance are needed as much for the layout and planting of the grounds as for the planning of the buildings. The planting is placed in the hands of some Scotch or German gardener, whose chief purpose is to sell as many plants as he can to his customer, and whose point of view at its best is exclusively that of a horticulturalist.

We have been informed by local architects that there is not a single gardener resident in the State who is capable of taking an architect's plan and of designing a planting scheme in reference to the salient architectural lines and masses; and this is a fact which young men who graduate this spring from schools or courses of landscape gardening will do well to bear in mind. A great opportunity awaits them in California, and in case they were competent and trustworthy they would have every chance of building up a lucrative business. Of course, it would for a number of reasons take time. In the first place the vegetation of California is peculiar in many respects, and would require careful preliminary study by a man who had been brought up in the East. Not only does the landscape gardener have an enormously greater variety of plants to draw upon, but the habit of shrubs and trees common both to the Pacific and the Atlantic coast is different in each locality. It might well take a newcomer several years of study and practical experience to master the material conditions necessary to the practice of landscape gardening in California. Furthermore he also would be handicapped in the beginning by the fact that, as we have already pointed out, many people who spend money upon planting do not as yet realize that they need the assistance of a

man who unites scientific and technical training with practical experience. Nevertheless he would have every assurance of winning out in the end. He could depend upon the assistance of some of the architects, and he would have behind him the big palpable fact that the coast country of California provides the most wonderful opportunity in the United States for landscape gardening on a large scale.

The opportunity which California offers is extraordinary both because of the great need of extensive artificial planting and because of the unusual resources which the landscape gardener has at his disposal. Those parts of California, in which men are being and will be tempted to erect large country houses, have not been well provided by nature with trees. The coast country, which is best adapted both by climate and beauty of landscape to human habitation, is a country of low and almost bare hills and valleys, and the architect when he comes to design a house in such a neighborhood has a free hand. He can arrange almost with precision for the kind and amount of foliage which he thinks will contribute to his architectural scheme, and if his scheme is an elaborate one, and includes long approaches, terraces and gardens, his plans will necessarily call for an amount of planting to which we are not accustomed elsewhere in the country. Moreover, as we have said, not only are the trees and shrubs upon which he can draw almost inexhaustible in variety, but they possess in certain notable and familiar instances the quality of being peculiarly adapted to the uses of the architect and the landscape gardener. The live oak is under any circumstances one of the most beautiful trees in the world; but it in addition looks extremely well around the right kind of a house. The height to which it ordinarily grows harmonizes with that of a low building; its habit of growth is both picturesque and symmetrical, and its foliage is dense enough to moderate the rays of the sun without at the same time entirely shutting out the grateful warmth and light. The eucalyptus, on the other hand, while it is not adapted to planting in the immediate vicinity of a house, serves admirably whenever it is desirable to create in a landscape the effect of masses of dark foliage, which are to be seen from a distance. Then in the Monterey cypress the gardener has a tree than which there is nothing better for hedges and dense dark screens. We have mentioned these three trees because they are so common and so very useful; but they are, of course, only three in a thousand. There is no effect in the landscape or in the vicinity of a house which an architect might desire to get, and which would be denied him because of meager horticultural resources. He can even dispense entirely, if he pleases, with the use of deciduous trees and plants, and design the grounds and garden so that the effect of the masses of foliage will be constant throughout the entire year.

The fact that the opportunity for effective planting is so rare in quality must in the long run make it just as unusual in bulk. In such a country so bountifully furnished by nature with the material for its own adornment and so blessed with a mild and invigorating climate, the desire to build and to plant must surely follow upon the opportunity. Californians themselves are better able to afford such luxuries than they were formerly; and it is not only Californians who will build during the next thirty years. Rich American families will want villas and country places in California just as wealthy Europeans want villas on the Riviera. The coast country of California is bound to become the great American pleasure garden, which will be frequented quite as much in the summer as in the winter, and which will constitute an irresistible attraction to all sorts of people with leisure. Of course it will attract many families who merely want to spend money and to loaf, but it will also attract others who will appreciate what a chance it affords to enjoy the highest interests and pleasures of country life. It may be inferred, consequently, that young landscape architects and gardeners are not taking very much risk in settling in such a country. They must be prepared for a longer period of apprenticeship than would be necessary in the East, and probably for certain discomforting experiences at the outset of their career; but in the long run if any of them should fail it would be their own fault.

THE MAJESTIC BUILDING

The Majestic Building, illustrated herewith, is one of the latest additions to the list of Chicago skyscrapers, and its design shows a mixture of well and ill-conceived ideas. The use of white terra cotta glaze on the street façade is wholly to be commended, because that material is both architecturally and practically well adapted to the task of veneering a twenty-story fireproof building. The design has,

furthermore, been kept tolerably simple, and the architect has attempted to make the side of the structure which is shown in the photograph even more conspicuously than is the front attractive by means of a little ornamentation. His devices to this end are not wholly successful, but they at least indicate that he did not propose to ignore the comparative conspicuousness of this aspect of the building. It is too bad, however, that he did not simplify still more his street façade. It is covered with a great deal of trivial ornament, which nobody will ever see from the narrow street on which the building is situated. This ornament looks, as a matter of fact, somewhat better in the photograph than it does on the actual building, and it seriously diminishes the value of what might otherwise be a straightforward, if commonplace, treatment of such a towering structure. One has only to compare the side of the building with the front in order to understand what the architect has lost by unnecessary ornamental detail.

FREE ARCHITECTURAL SCHOOLS

This country at the present time stands on the threshold of an artistic awakening, or should we say an educational awakening. The different schools of architecture are reorganizing their curricula, widening their fields and entering on new ones. Foreign influence is beginning to tell all over the country. The ever increasing number of foreign taught architects, sculptors and painters is no doubt paving the way for a future popular artistic tolerance if not a taste for things beautiful among the American people. The sentiment is making itself felt not only in professional circles but also at Washington. A bill has been introduced by Mr. William Alden Smith to remove the duty on certain objets d'art and art books, and is now pending before the House of Representatives. American artists of note have circulated a petition for "Free American Art" in support of the measure. The intelligent client is demanding something more of the artist than mere utilitarian qualities. All of which looks very promising for an artistic American sentiment in the near future.

In architecture the Society of Beaux Arts Architects is doing much to help along the cause by spreading its ateliers in the large cities. Mr. Carnegie has been interested in the cause; he has endowed an annual scholarship which permits one man, chosen from among the most talented students of architecture, to supplement his studies, especially in design, at the Ecole Nationale et Spéciale des Beaux Arts in Paris. But there is a feeling now among architectural authorities that this training in design is too restricted to the chosen few, and that something must be done by the different architectural schools to make it easier for a greater number of the draftsmen in the offices to avail themselves of academic privileges. In France the needs of academically trained men is not so great in number as in the United States. A firm like McKim, Mead & White do in a year perhaps as much work as all the important architects in France do in the same time. In France the public work is done exclusively by architects recruited by the government from the most talented men of the Ecole; a few are added each year, and the demand is amply filled, but in this country it is different. While we have State architects, they do not occupy the high place that is enjoyed by their French brethren, besides most of the important work is done by private interests under pressure and in fields more widely different than in other countries.

This difference in ultimate demand must naturally call for a difference in supply. How shall we get men properly fitted to do this work? The ready answer is by establishing more architectural schools and by making them available for the great mass of architectural aspirants. But how is a man to acquire all that it is necessary for him to know to make him a well-equipped architect, and this in a reasonable time? It is easy enough to understand that the French atelier system should work so admirably in France, the Frenchmen spend, six, eight or ten years to acquire their artistic training, and are consequently about thirty years of age before they begin serious work; only the talented ones stick it out and a most finished product results. The Ecole is free, and living expenses in France for the student are low, giving the poor an equal chance with the rich.

In the United States the comparatively few who are financially able, spend four or five years acquiring their architectural education, which in most cases includes not only professional subjects, but chemistry, mathematics, and other things that it is necessary for an architect to be acquainted with but which should have been mastered previously in another school, thus reducing the really effective time given up to professional training, from a quarter to a third. At the end of this time the students who are in most cases just beginning to grasp the relation of

things are turned loose upon the world, the majority to do no more artistic work, the very talented and ambitious to enjoy post graduate and foreign privileges. But this lucky number includes only a small part of those who ultimately practice the profession. The great majority must shift for themselves and get at odd times whatever they can at the Beaux Arts Ateliers and the various art schools and lecture courses, a very hard and unequal struggle.

It would seem high time for the government to take a hand in the matter of free architectural schools. Like the French, we might have a National School of Fine Arts in the capital; we might supplement it by smaller schools in those parts which seem most in need of them. These schools could be operated in addition to those now existing as private corporations. Each school would attract its own students and a natural cooperation would be sure to result. The various public libraries and museums would form valuable adjuncts. H. W. F.



Chicago, Ill. THE MAJESTIC BUILDING. A. G. Zimmerman, Architect.

A New Aid in the Specification Room

The making of specifications is not the easiest of the Architect's tasks. It is beset with many small vexations and some real problems. Certainly one of the vexations is to keep pace with the market. Manufacturers are incessantly introducing new goods, and of the old goods new models, new patents, new styles, new sizes. It is not an easy thing, and often it isn't an inexpensive matter to keep one's self or one's staff "posted." The ever present salesmen from the building material firm constitute a sparkling fountain of information, but the main source of information is either the advertisements in technical journals or the mass of catalogues that are annually deposited in architects' offices. The latter are undoubtedly of much service, but how much more valuable they would be were they:

(1) Prepared with an eye to the Architect's necessities.
(2) Edited so as to exclude all superfluous and useless matter.
(3) All printed of a uniform size.
(4) Put together in an organic manner, and arranged for the purpose of "reference."
(5) Thoroughly indexed so that any particular item might be turned to instantaneously.

Every architect makes some effort to solve "the catalogue evil." His first attempt at a solution is to consign to the waste paper basket instantly a large proportion of all the trade literature that reaches his office. Some of this discarded material might prove of great value later on, but one can't preserve everything when one has so much to preserve. Too many catalogues get into one another's way. They get mislaid, they get lost; they are all of so many sizes and shapes, from a postal card to a big quarto volume, that they cannot be handily arranged without great trouble and considerable expense. Moreover, if they are to be placed in some sort of order, some plan of arrangement becomes necessary, and a plan is not so easily arrived at as one may superficially think. If any one thinks to the contrary, let him attempt the arrangement of three or four thousand catalogues! He will certainly not succeed offhand. It is, of course, not difficult to arrange a number of catalogues in alphabetical order. This is merely a matter of labor, though not a small item at that. But a catalogue plan to be of any assistance must be a plan that enables one to find what one does *not* know as well as what one does. The alphabetical order does not help us far to *that* result. Undoubtedly, it enables the architect to put his hand upon the Richard Doe Company's catalogue, but it may well happen that he is not looking for a particular catalogue, but for a particular line of goods, or a particular product which is to be found only in some one catalogue and that catalogue for the moment unknown.

Thus, very few architects are content with a mere alphabetical arrangement of their catalogues. They devise a system whereby all "subjects" are grouped together. So that this work shall not be too extensive and too costly to maintain, they discard all but a comparatively few catalogues of firms with whom they are acquainted, or with whom they have had dealings. The rest go to—the waste paper basket. Millions of dollars are thus wasted.

Many attempts have been made to solve the problem, but they have all more or less failed. To be really successful requires a broad, comprehensive method, operated upon a co-operative principle—that is, all architects and all building material firms of standing must work together for a common object. Clearly, this cannot be accomplished by individualistic effort. The task must be entrusted

to some central agency to act as the agent of both the architect and the building material firm.

As a matter of fact, an agency of this character is at work to-day, and some four thousand architects and three thousand engineers, contractors and others have approved the "New Catalogue Method" devised by The Architectural Record Company under the title of "SWEET'S" INDEXED CATALOGUE OF BUILDING CONSTRUCTION. The first edition of this encyclopaedia of building materials is now in daily use in a majority of specification-rooms from Maine to California. The purpose, the idea, the method, and the principle that underlie "SWEET'S" INDEX as a real solution of the catalogue problem has received a stronger endorsement and more general commendation from the profession than has ever been given to any effort hitherto made on their behalf. It is not merely that the work is approved—the publishers have received some four thousand letters of encouragement—but the profession as a whole is heartily co-operating so as to enlarge the scope of "SWEET'S" and develop and perfect it.

The second edition of "SWEET'S" is now in preparation. It will be very much more extensive than the first, and this latter will also be perfected in many of its details. The ultimate purpose is to include in a set of volumes all the catalogues of the standard building material houses. Several hundred firms have already adopted the "new method," and others are rapidly dispensing with the old, loose, promiscuous, inefficient catalogue. A great mass of information has thus been gathered together, and been made available for ready use in the specification-room. The architect is freed from all expense. It is not necessary for him to preserve a great mass of trade literature, nor to keep any one on his staff to maintain it in order. A few volumes on a shelf place all information at his finger's ends. He can refer to anything for which he is looking as readily as to a word in the dictionary. The process is simple, literally as simple as A, B, C. A scientific Cross-Index makes him master of the situation, even to trade names, branch office addresses, and the like.

Any architect who has not yet received a copy of "SWEET'S" will be entitled to it free of cost, provided he will send his name and address to the publishers.

GETTY CENTER LINRARY
3 3125 00669 9629